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Real Estate Securitisation



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Real Estate Securitisation –
Asset-Backed Security Financing for the Property Industry

- An International Comparison applied to the Case of Germany -

For my Parents
and
Sarah

Preface

Lower loan commitments and an increased risk awareness resulting out of the introduction of the new Basel Capital Accord (Basel II) have led to an increasingly tense financing situation for the property industry in Germany, which is best described by the following quote:

“Everybody is complaining about credit. Businesses because they cannot get it any more, and banks because they have granted too much.”

The influence of this trend is not yet assessable. There is a great uncertainty going around in the industry and companies are thriving to substitute bank funding by non-bank funding (bank funding compared to capital market funding in Germany is 7 times higher than in the UK and about 4 times higher than in the US). Hence, alternative sources of financing are needed.

Asset-Securitisation is a form of innovative capital market oriented financing. Fueled by the disintermediation trend from credit to capital markets, the overall market for Asset-Securitisation in Europe has grown from €3.0 bn in 1992 to over €230.0 bn in 2004. Nearly every asset and every cash flow is capable of being securitized. A famous quote states:

“If it flows, securitize it.”

This holds true for all kinds of assets ranging from trade receivables to real estate cash flows. In Germany, the Real Estate Securitisation market (i.e. Securitisation of real estate cash flows) is still in its infancy stage.

The German banking industry is in transition: margins are low, there are sizeable amounts of non-performing loans (estimated at 5% of all outstanding loans) and the bank investors' Return-on-Equity targets seem to be unreachable. The author compares this situation with the Banking Crisis in the US during the 1980's, the near breakdown of the Japanese banking system in the late 1990's and the credit crunch in Singapore during the Asian Financial crisis. In all cases the situation was comparable to the state that Germany is in today, and in all cases the primary result with respect to real estate financing was the institution of a Real Estate/Commercial Mortgage-Backed Securitization.

sation market. This hints at the upcoming development of such a market in Germany, as it resolves out of the need for alternative sources of financing.

The research work at hand creates a framework for the analysis of Asset-Securitisation markets in general and Real Estate Securitisation markets in specific. The thesis is made up of four main parts: the first part defines and explains the principles and fundamentals of Asset-Securitisation. This chapter can be seen as an overview and an introduction to Asset-Securitisation.

The next part argues real estate as a separate asset class within the universe of Asset-Securitisation and proposes a new coherent definition of Real Estate Securitisation. In this context Real Estate Securitisation is differentiated from other asset classes, especially from Mortgage-Backed Securities. The Research Framework provides the basis for the International Comparison.

The International Comparison in Chapter 4 validates the instituted Research Framework and is made up of 3 case studies: Singapore, USA and Europe. This part is stringently structured. Each case study within the comparison follows the same setup, which is based on the research framework: market overview, display of institutional framework, identification of core determinants (assets, borrowers, motives), analysis. The breakdown of the case studies results in a Real Estate Securitisation Evolution Model, identifying patterns, drivers and minimum evolution requirements for markets to develop. The resulting findings are subsequently applied to the case of Germany.

The EUROPEAN BUSINESS SCHOOL has awarded the author with a Dr. rer. pol., which is comparable to a Ph.D.. The appreciation of his research piece derives out of its great originality, the high relevance for the marketplace and the stringent setup of the analysis. The instituted Research Framework and the Market Evolution Model provide a great added-value for theory and practice.

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Foreword

The Real Estate Financing World in Germany has changed dramatically over the past 5 years. The anticipation of the new Basel Capital Accord (Basel II), the ongoing consolidation in the German Banking System, an increasing number of non-performing loan exposures in the system, the resulting large loss provisions and increased Return-on-Equity requirements for banks have led to a credit crunch and the need to create Capital Market oriented financing instruments. In sync with an international convergence of financial and capital markets the underlying dissertation investigates the applicability of the Asset-Securitisation concept for financing Real Estate.

The starting point of this research thesis is the current situation in Germany and Europe with respect to real estate financing and Asset-Securitisation. The dissertation combines this analysis with the concept of Real Estate Securitisation as a new asset class. A Research Framework and a Life-Cycle Model for Asset- and Real Estate Securitisation markets are established. In order to validate the research framework and to derive results for Germany, an international comparison analyses three different Real Estate and Commercial Mortgage-Backed Securitisation markets in Singapore, the USA and Europe. The results are subsequently applied to the case of Germany.

When I started with my first research on Real Estate Securitisation five years ago, there was no information nor research available on Securitisation or Real Estate Securitisation in Germany. This has changed during the course of my dissertation. Nonetheless, the market in Germany still has a long way to go, in order to compete with other international markets. The ongoing capital market convergence, however, will play its part in this process.

Without the support of many people this research piece would never have become reality. First of all, I would like to thank my “academic father” and dissertation advisor Prof. Dr. Karl-Werner Schulte, who has been a great role model for me, and who has been my greatest supporter during my university career. He has not only advised me on my dissertation, but he has also shaped my personality and my academic development. His trust and believe in me, as

well as the great academic freedom that he has given me during my work at the Department of Real Estate and during the course of my dissertation has had a great effect on the success of this thesis. I would also like express my gratitude to Prof. Dr. Dirk Schiereck for being my co-corrector (second reviewer) and for reading this huge piece in such a short time.

My special thanks I would also like to express to my American Mentor Prof. Glenn Mueller, Ph.D., without whom this dissertation would never have gotten to this point. He has spared no efforts to open doors for me and he has always had an open ear for my problems and thoughts. His guidance in personal and professional matters is invaluable.

My third academic guidance in this dissertation has been Prof. David Ho, Ph.D., who has been a great supporter, especially during my research time in Singapore. Without his support, advice and network I would never have gotten this great insight into Real Estate and Capital Markets in Singapore.

I would also like to thank the Real Estate Department at the National University of Singapore and at Johns Hopkins University for supporting my local research and for letting me use their research facilities.

For their great insight from the practitioner's side and their commitment, I would also like to thank and mention all of my interview partners: Sing Tien Foo, Joseph Ooi, Seck Wai Kwong, David Ho and Lawrence Yeo in **Singapore** – Darren Wolberg, Thomas E. Robinson, Sharon Lee Stark, Martin C. Mitsoff, Patrick Corcoran, Stephen H. Choe, Warren S. Ashenmil, Johannes Boeckmann, Tyler Yang, Thomas R. Boemio, Jason C. Cave and Richard A. Jacobs in the **USA** – and Rolf Steffens, Cyril Courbage, Leonard van Drunen, Clive Bull, Robert Rügemer, Paul Rivlin and Caroline Philips in **London**. Above that I would also like to express my special gratitude to the German Team at Deutsche Bank's European Securitisation Group in London (Markus Schaber, Swen Mayer, Alex von Trotha, Rolf Steffens, and Sebastian Ottmann), who have hosted me in the summer of 2002 and have, thus, laid the foundation for my industry knowledge and the application-orientation of this dissertation. In this regard my special thanks goes to my friend Sebastian Ottmann, who has been my strongest and most important critic with respect to the practical applicability of my dissertation.

Without the ongoing support of the **ebs** DEPARTMENT OF REAL ESTATE with its central core Simone Schlager, Brigitte Gruß and Gudrun Würdemann, this work would never have become such a success. In this respect, I would also like to thank all of my companions from the Department, who have accompanied me during my time as research assistant at the EUROPEAN BUSINESS SCHOOL.

The dissertation time has been a great experience but in parts it has also been very tough. The reason, why it has always been bearable was that there was a close group of people that suffered at least as much as I did. For their ongoing encouragements and advice I would like to thank Markus Mentz, Lutz Niehüser, Denise Sumpf, Verena Sturm, Christoph Holzmann, Tobi Müller, Vera Schueerhoff, and Martin Ahnefeld.

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Hamburg, April 2005

Marc A. Breidenbach

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List of Abbreviations

Abbreviation	Meaning
\$	Dollar
S\$	Singapore Dollar
§	Paragraph
ABCP	Asset-Backed Commercial Paper
ABS	Asset-Backed Security (Securities)
ABS i.n.S.	Asset-Backed Securities in a narrower sense
APL	Annington Property Limited
Basel II	The new Basel Capital Accord
BBC	British Broadcasting Corporation
BCG	Boston Consulting Group
bn	billion
bp	basis point
CLF	Capital Lease Funding
CCT	CapitaCommercial Trust
CDO	Collateralized Debt Obligation
CDS	Credit Default Swap
Cf.	Confer
CFO	Collateralized Fund Obligation
CLN	Credit-Linked Note
CLO	Collateralized Loan Obligations
CMBS	Commercial Mortgage-Backed Securities

CMO	Collateralized Mortgage-Obligation
CMT	CapitaMall Trust
COB	Commission des Operations de Bourse
CSSF	Commission de Surveillance du Secteur Financier
CTL	Credit Tenant Lease Securitisation
DBS	Development Bank of Singapore
DSCR	Debt Service Coverage Ratio
e.g.	For example
ELOC	European Loan Conduit
ERGO	ERGO Insurance Company
EURIBOR	European Inter-Bank Offered Rate
EUROSTAT	Department of European Statistics
F&N	Fraser & Neave
FASIT	Financial Asset Securitisation Investment Trust
FCC	First Capital Corporation
FCC	Fonds Commun de Creances
FDIC	Federal Deposit Insurance Corporation
FED	Federal Reserve Bank
FHA	Federal Housing Administration
FHLMC (Freddie Mac)	Federal Home Loan Mortgage Corporation
FIRREA	Financial Institutions Reform, Recovery and Enforcement Act
FmHA	Farmers Home Administration
FNMA (Fannie Mae)	Federal National Mortgage Association
FSLIC	Federal Savings and Loan Insurance

	Corporation
FSPD	Financial Sector Promotion Department
GDP	Gross Domestic Product
GE Capital	General Electric Capital Corporation
GLC	Government-Linked Corporation
GMAC	General Motors Acceptance Corporation
GNMA (Ginnie Mae)	Government National Mortgage Association
GSE	Government Sponsored Enterprises
HVB	HypoVereinsbank
i.e.	In essence
IAS	International Accounting Standards
40 IDW	German Institute of Certified Public Accountants
IFRS	International Financial Reporting Standards
IRB	Internal ratings-based
JLL	Jones Lang LaSalle
KfW	Kreditanstalt für Wiederaufbau
KWG	German Banking Act
LOC	Letter of Credit
LTV	Loan-to-Value
m	million
MAS	Monetary Authority of Singapore
MBB	Mortgage-Backed Bond
MBS	Mortgage-Backed Securities
MPT	Mortgage-Pass Through

MRT	Metropolitan Rapid Transport
MTN	Medium Term Notes
N/A	Not applicable
NAIC	National Association of Insurance Commissioners
NOL	Neptune Orient Lines
NPL	Non-Performing Loans
NUS	National University of Singapore
O&Y	Olympia & York
OCC	Office of the Controller
p.	Page
PC	Participation Certificates
Q-SPE	Qualifying Special Purpose Entity
QUIB	Qualified Institutional Buyers
RE ABS	Real Estate Asset-Backed Security (Securities)
REIT	Real Estate Investment Trust
REMIC	Real Estate Mortgage Investment Conduit
REO	Real Estate Owned
RMBS	Residential Mortgage-Backed Securities
ROE	Return-on-Equity
RTC	Resolution Trust Corporation
S&L	Savings & Loans
S&P	Standard & Poor's
S.C.I.P.	Società Cartolarizzazione Immobili Pubblici S.r.l.
SEC	Securities Exchange Commission

SIV	Structured Investment Vehicle
SPE	Special-Purpose Entity
SPV	Special-Purpose Vehicle
TOP	Temporary Occupation Permit
TSI	True-Sale Initiative (International)
UK	United Kingdom
UOB	United Overseas Bank
US	United States (of America)
US GAAP	United States Generally Agreed Accounting Principles
USA	United States of America
VA	Veterans Administration
VAT	Value-Added Tax
VIE	Variable Investor Entity
WBS	Whole Business Securitisation

1 Introduction

1.1 Research Problem

The sale of receivables as such is relatively old. As far back as 1880, companies have sold receivables to each other. However, the transformation of receivables into tradable securities, which is described as 'Securitisation'¹ or 'Asset-Securitisation', is a fairly young financial markets innovation.²

In a classical Securitisation transaction a company sells a part of its – mainly homogenous assets – to a Special Purpose Vehicle (SPV) that is only created for the sake of the transaction. The SPV finances the purchase of the assets (usually receivables) by issuing securities on the capital market, which are backed by the SPV's assets. The securities are amortized by the cash flows that are derived from the acquired assets.³

The concept of Asset-Securitisation has its origins in the USA, where Asset-Backed Securities (ABS) have evolved from Mortgage-Backed Securities (MBS).⁴ The roots of Mortgage-Backed Securities⁵ in the United States go back to the emergence of the secondary mortgage market and the foundation of the Federal National Mortgage Association (Fannie Mae) during the 1930's.⁶ The first issuance of securities was not until the 1950's and the MBS market did not

¹ The spelling of Securitisation (Great Britain) and Securitization (US) differs by continent. In this thesis the British English spelling is used.

² Although Securitisation as a financing product falls into the wider category of structured finance products, Securitisation and Asset-Securitisation respectively are nowadays often used exchangeable with the term Structured Finance. This thesis will stick to Securitisation or Asset-Securitisation.

³ Cf. Seibert and Plohr (2001), p. B5.

⁴ Rosar (2000), p. 5.

⁵ In the USA the term Mortgage-Backed Securities usually refers to Residential Mortgage-Backed Securities. There is no generic term for the mortgage related Loan Securitisation, i.e. Commercial Mortgage-Backed Securities (CMBS) are a total different asset class than Residential Mortgage-Backed Securities (RMBS). In Europe the term Mortgage-Backed Securities is the generic term for all mortgage related Loan Securitisations including residential and commercial mortgage loans. Confer Chapter 4.3.2.1, p. 214.

⁶ Cf. Brueggeman and Fisher (2001), p. 495.

really take off until the 1970's.⁷ The Securitisation of Commercial Mortgage Loans into Commercial Mortgage-Backed Securities (CMBS) only evolved in the mid-1980's during the Savings & Loans crisis in the US.⁸ Today the secondary market for mortgage loans in the USA is highly developed. Loan Securitisation and especially Mortgage-Backed Loan Securitisation⁹ play a decisive role. During the past five years, securitised loans have become the major financing instrument to companies.¹⁰

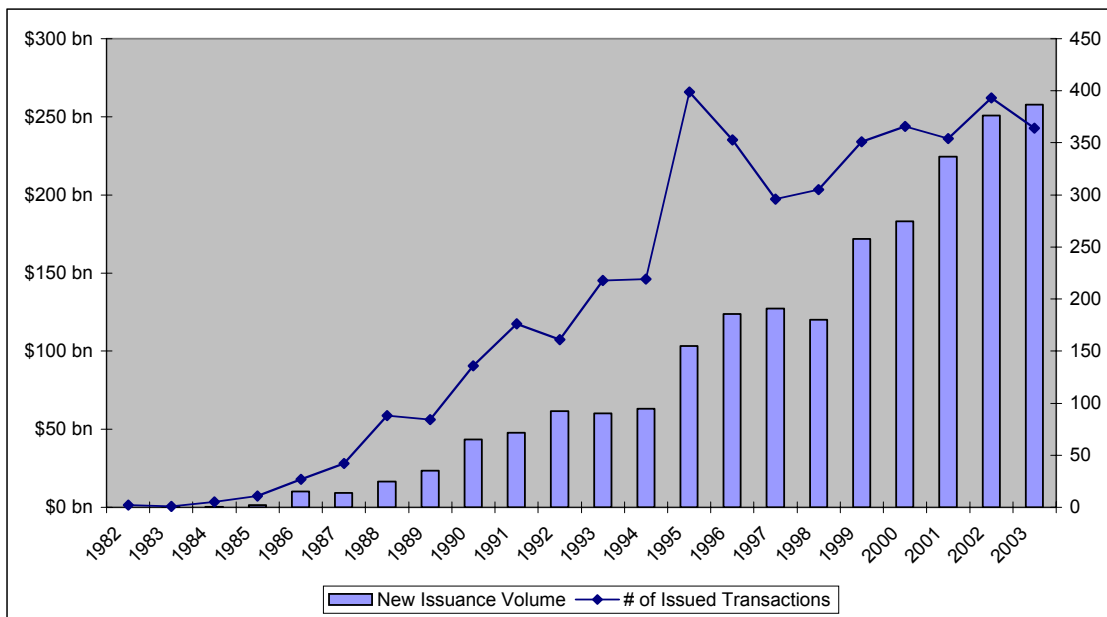


Figure 1: US Asset-Backed Security Issuance 1982-2003¹¹

Albeit the fact that Asset-Backed Securities as an asset class within Asset-Securitisation only exists since 1985,¹² the new issuance volume in the US has risen exponentially from \$0.07 bn (1982) to \$260 bn (2003).¹³

⁷ Cf. Falcon (2003), p. 29; Kendall and Fishman (2000), p. 6.

⁸ Cf. Baum (2000), p. 45.

⁹ Mortgage-Backed Loan Securitisation essentially is the same as Mortgage-Backed Securitisation. The common terminology in the market is Mortgage-Backed Securities, which is semantically wrong, because the asset that is securitised is the interest and principle of a mortgage backed real estate loan and not the mortgage alone. In this thesis Mortgage-Backed Loan Securitisation will be referred to by Mortgage-Backed Securitisation or Mortgage-Backed Securities.

¹⁰ Cf. Friedemann (2003), p. 9.

¹¹ Cf. Erturk, *et al.* (2004), p. 3.

¹² Even though the terminology differs from region to region, today the term Asset-Backed Security stands for both the generic term for all kinds of Asset-Secritisations as well as for an asset class within this framework. Cf. Chapter 2.1.

The same trend can be observed in many other financial markets around the world. Today, Securitisation has become a global structured finance product being utilized in countries on all five continents around the world: ranging from Australia to Venezuela and beyond.¹⁴ The global new issuance volume of structured products rose from \$47 bn in 1990 to over \$530 bn year-end 2002.¹⁵

In Europe, as numbers from Deutsche Bank European Securitisation Research indicate, the market for Asset-Backed Securities has also proven to be a similar success story. In 1992 the new issuance for all asset classes was at close to \$3 bn and augmented to about \$210 bn in 2003; from 2002 to 2003 it came to an increase of 30%.¹⁶ The market expects yet another increase of total issuance volume in 2004, amounting to more than \$220 bn.¹⁷

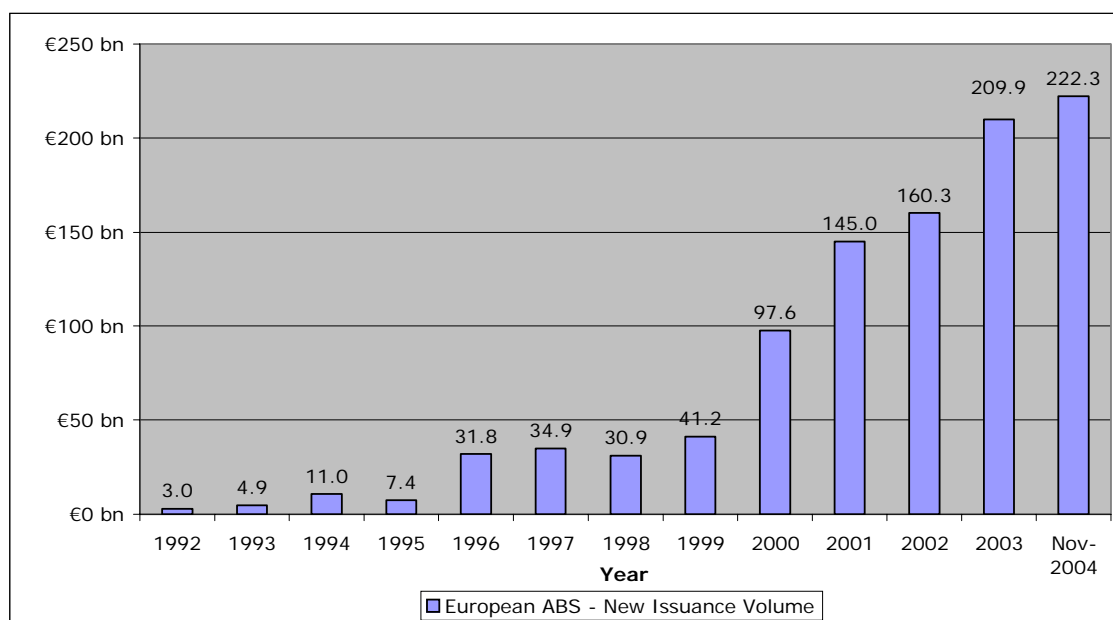


Figure 2: European Asset-Backed Security Issuance (1992-11/2004)¹⁸

The enormous growth of the market during the last five years can be attributed to mainly three things: the amendment of the legal and regulatory framework, the growing acceptance in the corporate and the banking market, and the

¹³ Cf. Erturk, *et al.* (2004), p. 2; Rose, *et al.* (2000), p. 1. These figures do not include single-issue synthetic transactions, Collateralized Debt Obligations (CDOs), or home-equity loans.

¹⁴ Cf. Leamy (2003), p. V; Preston (2001), p. IV.

¹⁵ Excluding MBS; cf. Leamy (2003), p. VIII.

¹⁶ Cf. Weber (2004), p. 3.

¹⁷ Cf. Kullrich (2004), p. 2.

transparency of the market that has been brought forward by the rating agencies.¹⁹

Apart from that the evolution of the market in Europe was stamped by a constant innovation of transaction structures and by unique transactions that have constantly opened up the Securitisation market for new asset classes.

The most diverse asset classes have evolved over time. For example soccer clubs like Schalke 04 or Real Madrid have satisfied their financing needs by issuing Asset-Backed Securities (ABS).²⁰ There have been a number of exotic Whole Business Securitisations (WBS):²¹ Pubs,²² Motorway Restaurants,²³ Hospital Operators,²⁴ Nursing Home Operators,²⁵ Funeral Homes,²⁶ Ferries,²⁷ Railway companies,²⁸ Utility Companies,²⁹ Madame Tussauds,³⁰ and Airports³¹ like the London City Airports.³²

Characterized by the famous quote: "If it flows, securitize it."³³, today there is not one asset class (with predictable cash flows) that is not securitizable and that has not been considered for Asset-Securitisation.

¹⁸ Source: Deutsche Bank Securitisation Research Cf. Rajendra, *et al.* (2004a), p. 4; Rajendra, *et al.* (2003), p. 5; Rajendra, *et al.* (2002), p. 5.

¹⁹ Cf. Sampson (2001), p. 15.

²⁰ Cf. Dorendorf (2004), p. 21; Miles (2002).

²¹ Depending on the rating agency, Whole Business Securitisations are also known as 'Corporate Securitisations', 'Corporate-Entity Securitisations', 'Corporate-Hybrid Transactions'. Cf. Bernous, *et al.* (2004), p. 1.

²² Cf. Cox, *et al.* (2004), p. 1.

²³ Cf. Walker (2000), p. 55.

²⁴ Cf. Anonymous (2002l), p. 48; Katz (2003), p. 55.

²⁵ Cf. Anonymous (1999z), p. 1.

²⁶ Cf. Collingridge, *et al.* (2003), p. 245.

²⁷ Cf. Walker (2000), p. 55.

²⁸ Cf. Anonymous (2003p), p. 14.

²⁹ Cf. Unmack (2002).

³⁰ Cf. Hay (2000), p. 168.

³¹ Cf. Anonymous (1999y), p. 13.

³² Cf. Hay (2002).

³³ Cf. M. McCoy, Salomon Brothers, quoted from Paul (1994), p. 186.

Premier transactions like the Formula One Securitisation have proven the notion of the quote above and have demonstrated the various possibilities of Asset-Securitisation. The assets underlying the issued securities in the Formula One Asset-Backed Bond were future income from licence, advertising and merchandising rights originated by the Formula One Company. The only collateral was the going concern of the company.³⁴ Another big Securitisation was the a 'work in progress' deal launched in 2001 by a European shipyard: Chantiers de l'Atlantique. The Chantiers de l'Atlantique transaction securitised future instalment payments for the delivery of three cruise vessels under construction for Royal Caribbean Cruise lines.³⁵ The airport of Rome (Aeroporto di Roma) also used Asset-Securitisation, when it refinanced existing bank debt by issuing Asset-Backed Securities. The Securities were backed by future proceeds of the Rome airport, i.e. take-off and landing fees as well as rental income from the airport.³⁶

The last few years witnessed the growth of what are referred to as 'Esoteric Asset Classes'³⁷ within Asset-Securitisation. The observed expansion of new esoteric asset classes underlines the premise that if an asset can generate a predictable, steady stream of revenue, it may be a candidate for Asset-Securitisation.³⁸

In Europe esoteric inventory Securitisations like the Champagne stock Securitisation have helped the structured finance market even up the way for the ongoing expansion of this financing instrument.³⁹ Recent issuances of

³⁴ Cf. Anonymous (1998e), p. 8; Anonymous (1998f), p. 12; Anonymous (1999t), p. 7.

³⁵ Cf. Clifford Chance European Securitisation Group (2001), p. 37.

³⁶ Cf. Weiffenbach and Ghali (2003), p. 248.

³⁷ Esoteric Securitisations involve new complex asset classes that have traditionally been unused, as well as transactions and transaction structures that are very exotic or that will be one-time transactions. Cf. Seibert and Plohr (2001), p. B5.

³⁸ Esoteric Securitisations belong to Asset-Backed Securities i.n.S. These assets include municipal tobacco litigation settlements, tobacco lawsuit attorney fees, healthcare receivables, aircraft leases, mutual fund fees, trademark licenses, patent-related royalties, insurance-related premiums, film receivables and music royalties, among others. Cf. Rosenberg and Weiss (2003), p. 111.

³⁹ The Securitisation of the Champagne stock that was produced, stored and sold by the French Groupe Marne et Champagne a.r.l. (M&C) was characterised by one of the most innovative structures at that time. Cf. Clifford Chance European Securitisation Group (2001), p. 37.

securities collateralised by pools of limited partnership interests in private equity funds (Collateralized Fund Obligations – CFOs) have shown that the market has reached a very innovative level. This transaction has created growing interest among issuers, investors and other market participants in new asset classes in order to diversify their risks.⁴⁰

The above described examples show that the current development can be described as: „What started as true sales of large pools of homogenous assets has spread to allow the technique to be used for more diverse, unique asset types.“⁴¹ This is also true with real estate assets. There could be a whole lot of real estate assets, i.e. real estate receivables, real estate sales proceeds, real estate development proceeds or the Securitisation of whole buildings that could qualify under this definition.⁴²

And the reason, why this new innovative concept is important for the property industry in Europe and especially in Germany is that it seems to be the solution to the credit crunch experienced by the industry at the moment. It is aimed at providing companies and industry with urgently needed financing, which is provided directly from the capital markets.⁴³

Asset-Securitisation is not entirely new to Germany. As far as the ‘German Pfandbrief’ is recognized as a relative form of Asset-Securitisation, the historic roots go back to the 18th century, the time as the first Pfandbrief concept was invented. The Pfandbrief has been the superior funding instrument for German Mortgage Banks ever since. It is similar to a Mortgage-Backed Bond that is backed by the issuing institutes balance sheet; it is collateralized by mortgage loans that do not go beyond 60% Loan-to-Value. In the case of the bankruptcy of the issuing institute the Pfandbrief-Investors take over the mortgage loans that are backing the bonds. The difference to Asset-Securitisation is that the

⁴⁰ Cf. D'Souza (2003), p. 10; Flämig (2003a), p. 9.

⁴¹ Patrice Jordan, managing director of global asset-backed securities, Standard & Poor's, New York. Cf. Rose, *et al.* (2000), p. 1.

⁴² Confer Chapter 3, p. 53.

⁴³ Cf. Hagen (2003), p. 12.

assets backing the security are not transferred to a separate Special Purpose Vehicle (SPV).⁴⁴

Asset-Securitisation as a general financing tool for corporates has, however, only gained momentum during the last three years. This is mainly due to the fact that those companies could always pick and choose among many financial institutions that were willing to provide financing with high loan-to-value ratios and very tight margins. Credit risk has until now been always underestimated.⁴⁵

Only with the new Basel Capital Accord (commonly known as Basel II) that will be coming into effect in 2006,⁴⁶ this trend is changing. Banks are pushed to raise their margins and to better manage their risks and their credit side.⁴⁷ Non-performing loans and high loss provisions have urged the lending institutions to change their loan underwriting methods and criteria.⁴⁸

Until 2003, the German banking industry denied the non-performing loan problem.⁴⁹ However, the magnitude of the problem became obvious, when expected losses – many resulting from real estate loans – in bank portfolios became so high and the built-up pressure on the earnings became so strong that banks had to admit to non-performing loans and had to sell large portfolios at liquidation values.⁵⁰

Since 2003 there have been several portfolio sales of non-performing loans including: Sparkasse Görlitz,⁵¹ HVB Real Estate,⁵² Dresdener Bank,⁵³ Delmora Bank.⁵⁴ The German non-performing loan market is dominated by US private

⁴⁴ Cf. Hagen (2003), p. 12; Schiereck and Rauch (2002), p. 174.

⁴⁵ Kretschmar and Damaske (2003), p. 22.

⁴⁶ Cf. Basel Committee on Banking Supervision (2003b), p. 1.

⁴⁷ Cf. Hommel and Lehmann (2002), p. 231.

⁴⁸ Cf. Anonymous (2003i), p. 1.

⁴⁹ Cf. Anonymous (2003c), p. 22.

⁵⁰ Cf. Schmid and Maier (2005), p. 19.

⁵¹ Cf. Anonymous (2004j), p. 18.

⁵² Cf. Anonymous (2004e), p. 26; Anonymous (2004h), p. 26.

⁵³ Cf. Anonymous (2004g), p. 19.

⁵⁴ Cf. Anonymous (2004g), p. 19.

equity firms.⁵⁵ Lone Star, which acquired about half of the market to date, is the biggest player. In 2004, about €10 billion of non-performing loans were sold. Lone Star's expectation for the market in 2005 is to go up to €15 to €20 billion, with a total of outstanding non-performing loans that ranges around €250 to €300 billion – approximately 5% of all outstanding loans in Germany.⁵⁶

Part of the problem for banks was that the risk of the loans never got adequately priced into their lending rates. As loans became non-performing, banks had to take on large loss provisions that had not been taken into account when calculating the loan margins. The latest example is the Hypo Vereinsbank, which has admitted to €15 billion of non-performing real estate loans, which has led to loss provisions of €2.5 billion.⁵⁷

As a result of this overall trend, the lending practice has changed dramatically in recent times to the disadvantage of property owners. Higher lending rates and lower loan commitments by lending institutions are the consequence. As a survey undertaken for this dissertation has shown:⁵⁸

- 66% of the surveyed lenders expect a higher lending spread, due to an increase in the risk premium; only 32% believe that the lending spreads are going to keep steady.
- 40% of the respondents expect a lower loan commitment, 30% expect constant loan commitment and only 28% are willing to commit more loans than in the past.

This trend magnifies the problems of the property industry. While property companies are seeking new ways of financing their acquisitions, developments or existing holdings, banks – due to Basel II – are increasingly becoming restricted in their lending capacities. Hence, the main problem is that property

⁵⁵ Cf. Anonymous (2003k), p. 1; Anonymous (2004f), p. 25.

⁵⁶ Cf. Schmid and Maier (2005), p. 19.

⁵⁷ Cf. Maier and Hegmann (2005), p. 1.

⁵⁸ Confer Chapter 5.1, p. 483.

companies are increasingly facing the challenge of getting good and affordable financing. The companies are confronted with a credit crunch.⁵⁹

Real Estate Securitisation might be the way out of the property companies' financing dilemma and may help diversify their funding base; it could function as a means for the disintermediation of real estate lenders and therefore as an innovative financing alternative for the property industry.⁶⁰ The concept of Real Estate or Property Securitisation,⁶¹ is positioning itself as an alternative-financing product to classical real estate financing. It could function as a substitute for traditional mortgage financing as well as a complementary product to enhance traditional financing. For example, if a borrower is facing restrictive financing policies from the banking side, he can directly access the capital markets.⁶²

Summing up the **research problem**, the dissertation is concerned with property companies that are experiencing difficulties to finance their commercial real estate. Thus the focus of this dissertation will be on the viability of capital-markets oriented financing for commercial real estate assets as a substitute or a complement to traditional financing (i.e. Real Estate Securitisation). It will be derived from an international case study comparison that is subsequently applied to the case of Germany. Hence, two sets of subordinate research problems can be derived – Property and Asset-Securitisation related research problems.

The property related research problem is summarized in the following:

- There is a credit crunch observable in Germany.
- Sources for traditional real estate financing are becoming less.
- Real estate financing for certain properties will be tougher to achieve with the new Basel Capital Accord being implemented into the German banking system until 2006.

⁵⁹ Cf. Lorz (2003), p. 7.

⁶⁰ Cf. Pickersgill (2001), p. 125.

⁶¹ Real Estate Securitisation and Property Securitisation are exchangeable terms. In order to avoid confusion, this thesis will stick to Real Estate Securitisation.

- Alternative sources of financing are needed for the property industry.

The Asset-Securitisation related research problem is delineated below:

- The Asset-Securitisation universe is expanding, but Real Estate does not exist as a separate Securitisation Asset Class, yet.
- There is no consistent definition of Real Estate Securitisation neither in industry nor academic literature.
- There exists no adequate theoretical research framework for neither Real Estate Securitisation nor Asset-Securitisation markets.
- A Life-cycle model for the evolution of Real Estate Securitisation market is missing.

Concluding this part the main propositions are:

‘There is no adequate framework for the analysis of Asset-Securitisation or Real Estate Securitisation markets.’

and

‘There are no adequate capital market oriented commercial real estate financing instruments for property companies in Germany. Nevertheless, there is a need for such products, given the external circumstances’.

Consequently the two research questions that this doctoral thesis is aiming to answer are:

1. What is an adequate framework for Real Estate Securitisation markets and how do such markets evolve?
2. Why has the market for Real Estate Securitisation not evolved in Germany, yet, and how can the framework be adjusted to make Real Estate Securitisation viable in Germany?

⁶² Cf. Rügemer and Siemes (2002), p. 771.

1.2 Importance of the Study

The importance of this research work becomes clear, when one looks at the following quote by Dr. Louis Hagen, Managing Director of the Association of German Mortgage Banks:

*“Everybody is complaining about credit. Businesses because they cannot get it any more, and banks because they have granted too much.”*⁶³

The indications of an upcoming credit crisis in Germany are already observable⁶⁴ but its influence on real estate lending is not yet assessable for the German property industry. However, there is a great uncertainty going around in the industry and companies are thriving to substitute bank funding by non-bank funding.⁶⁵

Hardly any other banking subject has had such a great influence on such a broad section of Germany’s political and business community as have the new rules emerging from the new Basel Capital Accord.⁶⁶ This sensitivity is closely tied to the vast significance that borrowed capital, i.e. bank debt, has for the German economy. The fear that the funds required for investments will **either rise sharply in cost** or may even **become completely unattainable** scares the German industry. Especially the commercial real estate sector is greatly influenced by this, since it has traditionally relied heavily on bank debt. But also the rest of the economy relies heavily on loans secured by mortgages (almost every other bank loan in Germany is collateralized by mortgages). In comparison to the US and the UK, German companies rely a lot more on bank lending than on alternative lending sources.⁶⁷

The relevance of this circumstance is very well documented Figure 3: International Comparison of Capital Markets Financing Utilization.

⁶³ Hagen (2003), p. 11.

⁶⁴ Even though the Basel Capital Accord does not come into effect until the end of 2006, the banks are urged to start following the Basel II Guidelines, if they want to choose the Internal ratings-based (IRB) approaches. Cf. Basel Committee on Banking Supervision (2003b), p. 1.

⁶⁵ Cf. Wolf (2004).

⁶⁶ Cf. Pitschke (2004), p. 273.

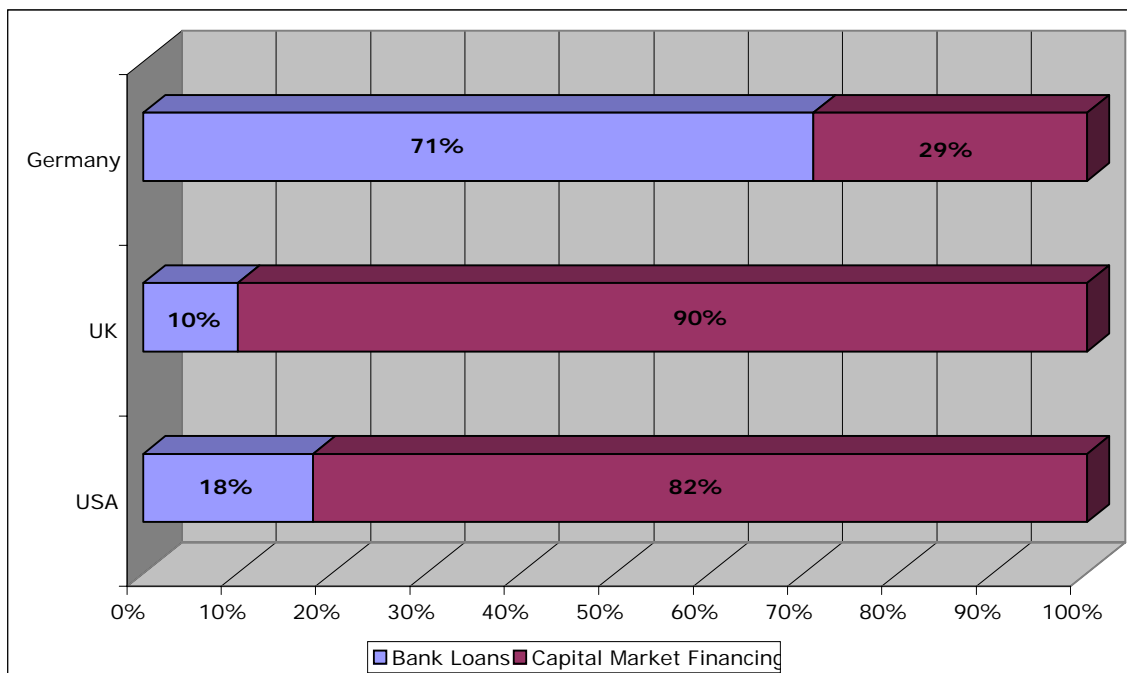


Figure 3: International Comparison of Capital Markets Financing Utilization⁶⁸

In Germany the share of bank loans vis-à-vis capital market financing is up to seven times higher than in the UK and about 4 times higher than in the USA. 71% of all financings are bank financings, whereof mortgage loans make up 31% and other bank loans make up 40%. Hence, in an international comparison Germany is a straggler and is having difficulties to follow the trend from credit to capital markets.

Apart from the effects of Basel II, there are other factors that influence the credit commitment of the German Banking System. Traditionally German Banks have been very strong in loan underwriting, so that no alternative financing sources for debt finance could evolve. So the German Mortgage Banks have not only underwritten a lot of loans, but they have also priced those loans so competitively that no other instrument could compete.⁶⁹

This was only possible because of the Pfandbrief as the primary funding tool. This funding tool was a peculiarity of the German mortgage funding market that

⁶⁷ Cf. Hagen (2002), p. 41.

⁶⁸ Cf. Hagen (2002), p. 41.

⁶⁹ Cf. Day and Moore (2003).

until the emergence of the UK covered bond market⁷⁰ only existed in Germany. Thus, German banks and especially the Landesbanks (having a government guarantee) could always fund their loan commitments at very low rates and this explains, why the German real estate borrowing rates were always lower than in the neighbouring European countries.⁷¹

So, in the aftermath of the extensive loan-underwriting phase of the 1990's the German banks have lost a lot of money and are today sitting on a huge non-performing loan exposure that is weighing heavy on their balance sheets.⁷² Even though the German banking industry has for a long time not admitted to this, the non-performing loan problem in the German banking market is bigger than previously expected.⁷³ The expected total volume ranges from €100 to €300 billion,⁷⁴ which could be an enormous boost to the Securitisation market, if the loans got securitised as in the case of the US.⁷⁵

The situation is best described by the following quote:

*"They [the German banks] are looking wounded and their competitive slim margins are expected to widen as they look to improve their cost of return on equity. Their performance will be further affected by problems of non-performing loans at home and regulatory changes, such as the Basel II Accord, which is forcing banks to adjust the levels of reserves they are obliged to hold."*⁷⁶

Therefore, the increasing cost of capital that German banks are incurring now is supporting other forms of lending, like Securitisation.⁷⁷ But also the lending

⁷⁰ The European covered bond market evolved in the UK and really only exists since 2000. Until recently there was not even a legal framework in the UK. Cf. Day (2003), p. 74; Dreesbach (2003), p. B6.

⁷¹ Cf. Weber (2003), p. 3.

⁷² Cf. Morris (2002), p. 52.

⁷³ Cf. Anonymous (2003i), p. 1.

⁷⁴ Cf. Schmid and Maier (2005), p. 19.

⁷⁵ Cf. Anonymous, Die Welt (07 May 2004).

⁷⁶ Cf. Anonymous (2003a), p. 35.

⁷⁷ Cf. Anonymous (2003a), p. 35.

industry is increasingly turning to Securitisation to reduce their loan exposures and to lower the regulatory capital required under the Basel Capital Accord.⁷⁸

In addition to the effects of Basel II and non-performing loans, the consolidation in the German mortgage banking market is also an indicator for rising real estate financing margins in the future. Because the competition between the mortgage banks is declining, there will be a greater concentration, less competition and higher margins will be achievable for the lending institutes.

Only a few years ago mortgage banks started to consolidate when HypoVereinsbank merged three of its mortgage banks to create HVB Real Estate. Rheinboden and Allgemeine Hypothekenbank also merged, while Eurohypo was formed from the mortgage banking divisions of Deutsche Bank, Dresdner Bank and Commerzbank.⁷⁹

An empirical study that was conducted for this dissertation thesis in 2003 came to the conclusion that the recognition of the Securitisation and the Real Estate Securitisation concept among most German Real Estate Lenders is high; nonetheless the understanding of Real Estate Securitisation is quite low. The name recognition of Securitisation is very high with 94.1%; however, the market penetration of this concept is relatively low with only 37% of the respondents admitting to use Asset-Securitisation. With Real Estate Securitisation the name recognition is also very high – 78.7%, nonetheless the understanding is mixed and concentrates on Mortgage-Backed Securities and Pfandbriefe, whereas the Securitisation of Real Estate Cash Flows is underrepresented. This leads to the conclusion that there is no common definition of this term. Hence, there is a need to derive one.⁸⁰

Moreover, 40% of the surveyed lenders expected less loan commitment in 2003 compared to 2002 and even 52% believe that the new Basel Capital Accord (Basel II) will push them to restrict their loan commitments in the future. Given this result, it is important for German property companies to diversify their

⁷⁸ Cf. Friedrich (2004), p. B5.

⁷⁹ Cf. Anonymous (2003a), p. 35.

⁸⁰ Refer to Chapter 5.1.

funding sources and to find new ways of financing real estate, in case the bank lending capacities will decrease even more.⁸¹

Japan, for example, a couple of years ago were in a similar position that Germany is in today. The restructuring of corporate Japan, which has forced some companies to adopt a new approach to their real estate holdings, as well as the well-documented 'credit crunch' caused by the problems engulfing the nation's banks, has also forced many borrowers to look at previously-untried funding sources. This has led to a functioning Real Estate Securitisation market.⁸²

The same observations can be made in the three case studies (Singapore, USA and Europe) that are analyzed in the international comparison of this thesis.

1.3 Purpose & Objective

The focus of this thesis lies on the international comparison of Real Estate Securitisation markets in Asia (Singapore), North-America (USA) and Europe. As a result of this study, minimum requirements for the evolution of Real Estate Securitisation markets will be derived that will be tested for the case of Germany. The analysis of the viability of an alternative capital markets oriented financing instrument for commercial real estate in Germany will be the product of the application of this framework to Germany.

Hence, the main objectives of this research work are:

1. To merge the two concepts of Real Estate Finance and Asset-Securitisation into Real Estate Securitisation and to justify real estate as a new asset class within the universe of Asset-Securitisation.
2. To define Real Estate Securitisation.
3. To develop a framework for the development of Securitisation Markets in general and to deduce a specific framework for the evolution of Real Estate Securitisation markets.

⁸¹ Refer to Chapter 5.1.

⁸² Cf. Lewis (2003), p. 196.

4. To validate the framework through an international comparison and to derive conclusions for the potential evolution of other Real Estate Securitisation markets.
5. To apply the framework to Germany, in order to find out why there is not any significant level of Real Estate Securitisation in Germany, yet.
6. To recommend what has to be done in order to make Real Estate Securitisation viable in Germany.

1.4 Hypothesis

This part is summarizing the research problem, importance and objective into the main hypotheses of the thesis. There are three hypotheses:

1. A theoretical framework for Securitisation markets exists that is internationally valid and that can be applied to Real Estate Securitisation markets. Minimum requirements for the evolution of such a market can be derived from this framework.
2. There is a need for Real Estate Securitisation in Germany.
3. Real Estate Securitisation is viable in Germany.

The above described hypotheses and coherences will be examined during the course of the dissertation thesis.

1.5 Research Theory

1.5.1 Research Approach

The present thesis' appreciation of science derives from the perspective of the Applied Sciences/Application-oriented Science:

“Ich verstehe darunter die Tätigkeit von Hunderttausenden von wissenschaftlich gebildeten Menschen, die darauf gerichtet ist, mit Hilfe von Erkenntnissen der theoretischen oder Grundlagenwissenschaften Regeln,

*Modelle und Verfahren für praktisches Handeln zu entwickeln, - für ein Handeln also, das man als <<wissenschaftsgeleitete Praxis>> bezeichnen kann.*⁸³

Applied Science or Application-oriented Science, as described by Hans Ulrich in the above quote, relates to research done by thousands of researchers that use cognition from fundamental research to generate rules, models and methods for practice, i.e. this can be called science-oriented practice.

In applied science, new knowledge and solutions for practice is generated with the aid of knowledge from the fundamental or theoretical sciences as well as from practical experiences. Despite the fact that a strong scientific orientation towards application differs significantly from the perspectives of fundamental sciences and general practice, it remains connected with both and thus, can be classified in between (Figure 4: Classification of Applied Research).⁸⁴

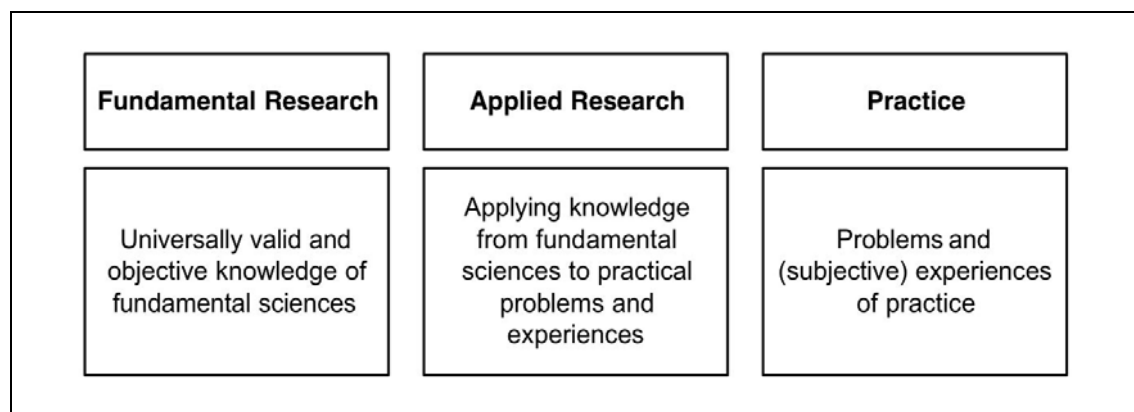


Figure 4: Classification of Applied Research⁸⁵

Own translation

The research process commits to several rules associated with different types of sciences. These differ according to the underlying research object and the research aim. Ulrich and Hill (1976) differentiate the sciences according to the following principles: the nascence and type of problems, research contribution, aspired propositions or statements, research regulative and research criteria (Figure 5). On the one hand, fundamental sciences, such as chemistry and physics, aim at developing explanatory models based on the objective reality under scrutiny. Applied sciences or application-oriented sciences, such as

⁸³ Ulrich (1984), p. 200.

⁸⁴ Cf. Thommen and Achleitner (2003), p. 50.

⁸⁵ Cf. Thommen and Achleitner (2003), p. 52.

sociology and education science, on the other hand, take practice as the constitutive starting point for their study of possible realities.⁸⁶

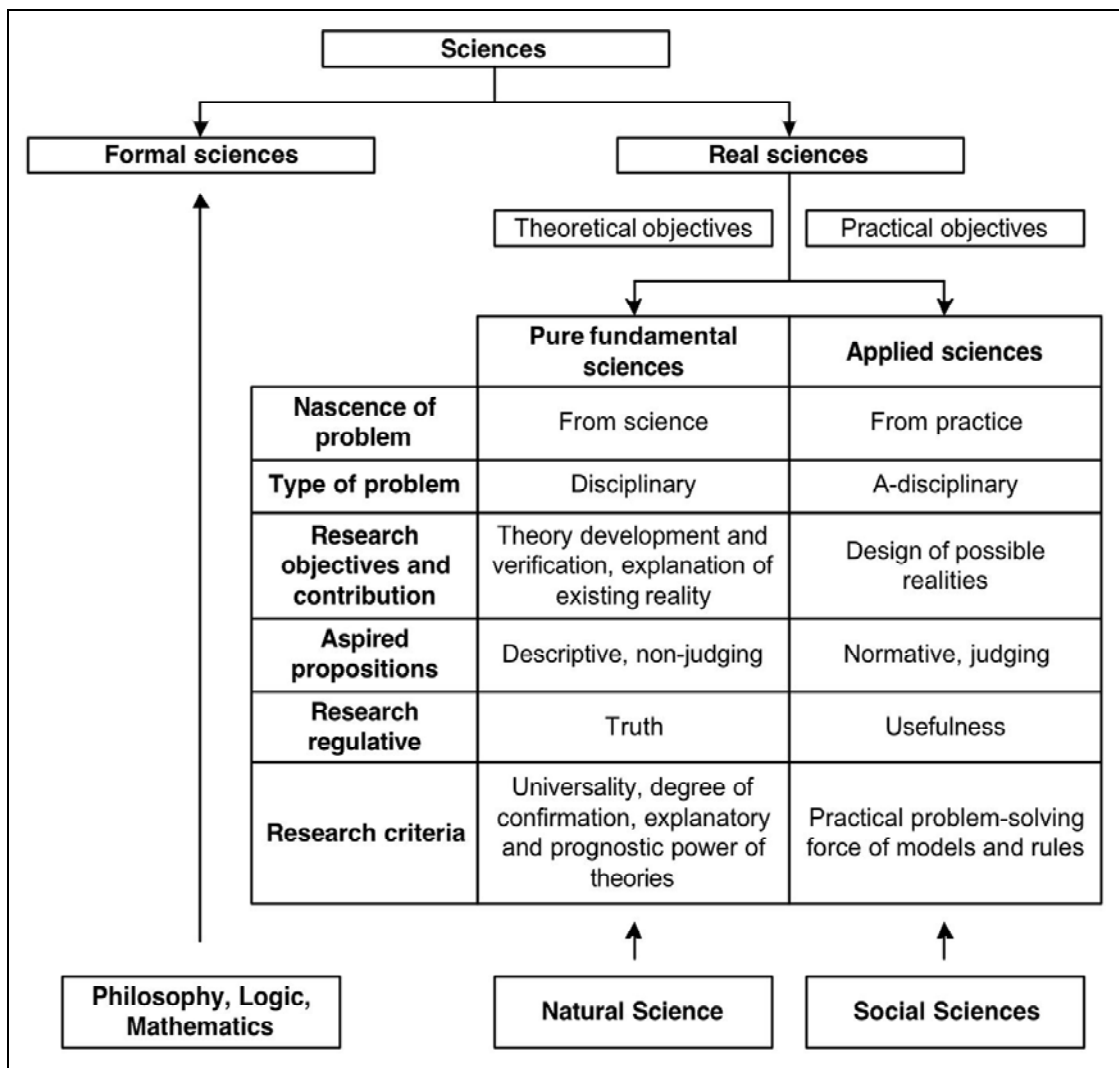


Figure 5: System of Sciences according to Ulrich and Hill⁸⁷

Relating the research problem derived in Chapter 1.1 to the application-oriented research approach of social science that has been described above, the following research criteria can be delineated:⁸⁸

Origin of Research Problem

The problems tackled by application-oriented research origin out of the practical world, i.e. they originate outside the scientific world. The same holds true for the

⁸⁶ Cf. Ulrich (1981), p. 10.

⁸⁷ Cf. Ulrich and Hill (1976), p. 305.

⁸⁸ In the following mainly confer to Ulrich (1981), p. 1; Ulrich (1982), p. 1; Ulrich (1995), p. 167; Ulrich (1995), p. 179.

research problem underlying this dissertation. In this respect the central problem is not characterised by the validity of hypotheses or legalities or a theory per se, but the concrete applicability of different courses of action and models for applying science-conducted actions to the practical world.

Use of Research

The proposition of application-oriented science is to create cognition as well as methods, models and rules, which have a practical relevance and use.⁸⁹ This thesis contributes to the practical world in such a way that it applies the financing method of Asset-Securitisation to the field of real estate financing. The resulting concept of Real Estate Securitisation is analysed on an international level (by the use of case studies) and subsequently applied to the case of Germany. The practical problem is that the German real estate financing environment is momentarily inflicted by a credit crunch and alternative ways of financing are needed.

Value Judgement

For Ulrich, the social science is essentially confronted with the problem of value judgements. Research guidance on utility criteria is always linked to judgements and interpretations of the researcher that uses them continuously during the course of his research. Hence, this piece of research includes inseparably normative elements, because it is conducted by a human and it is aimed at giving advice to economic agents.⁹⁰

Interdisciplinarity

The problems of acting subjects are a-disciplinary and do not orient themselves along the lines of fundamental science categories. Application-oriented research is, hence, directed at interdisciplinarity.⁹¹ This dissertation follows this perception, as it relates to social science as well as to cognitions from business studies with respect to the field of real estate.

⁸⁹ Cf. Ulrich (1981), p. 15.

⁹⁰ Cf. Ulrich (1995), p. 161.

⁹¹ Cf. Ulrich (1982), p. 1.

The scientific discipline that creates the framework for this dissertation is the field of real estate, which is based on a broad and interdisciplinary approach founded by Graaskamp (USA) and Schulte (Germany).⁹² In their understanding of real estate, the core of real estate studies (“Immobilienökonomie”)⁹³ is the explanation and composition of real life decisions of economic agents dealing with real estate. The interdisciplinarity results out of the openness of real estate studies to other scientific disciplines besides business studies and social science, such as economics, legal studies, spatial planning, architecture and civil engineering. Business studies are still the foundation for real estate studies, however, given the multi-dimensional character of real estate, a sole orientation at business and finance would stay short of a comprehensive cognition.

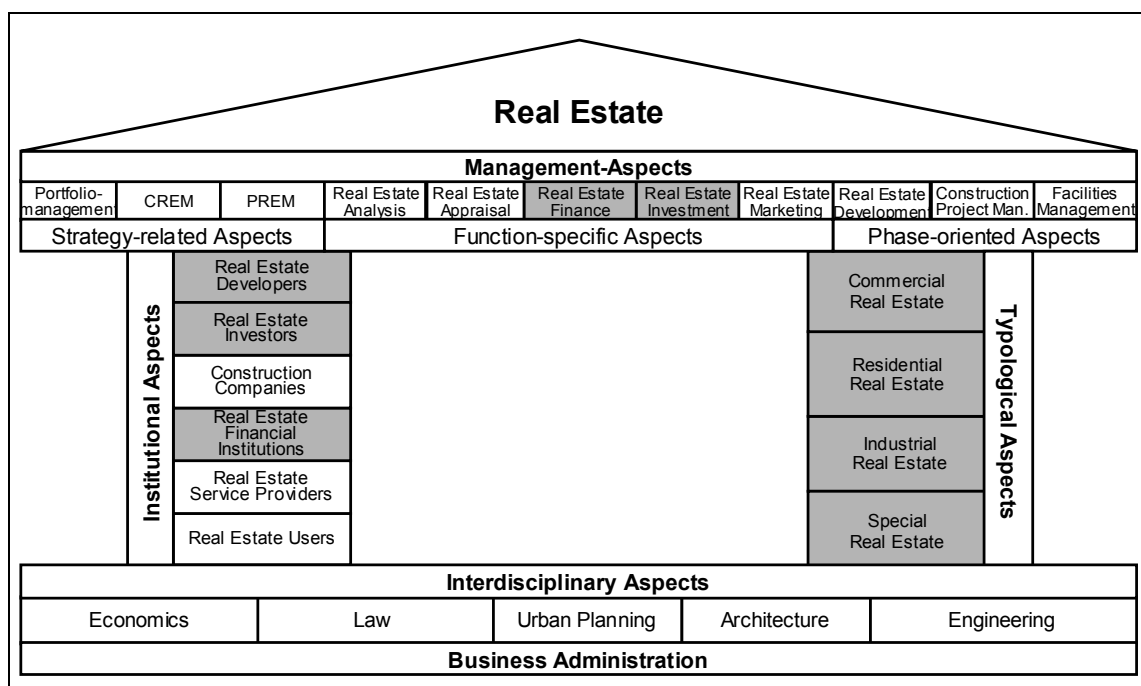


Figure 6: The House of Real Estate⁹⁴

Own translation

⁹² Cf. Graaskamp (1991), p. 40; Schulte and Schäfers (2005), p. 52.

⁹³ Prof. Dr. Karl-Werner Schulte, HonRICS is the pioneer of real estate education in Germany. He has been the founder of the house of real estate and the train of thought that has constructed and defined real estate (Immobilienökonomie) as an academic discipline in Germany. For a deeper appreciation of this achievement confer Schulte and Schäfers (2005), p. 49.

⁹⁴ Cf. Schulte and Schäfers (2005), p. 58.

With respect to the multi-dimensionality of real estate, the “House of Real Estate”, which was invented in 1993 to demonstrate the complexity and interdisciplinarity of real estate studies, shows that cognitions from the other scientific disciplines cannot be adopted without any adaptations relating to the problems resulting out of an interdisciplinary context. However, in contrary, real estate studies may have an effect on research and cognition of the neighbouring disciplines.

The aim of real estate as an academic discipline is to explain and to support decision processes by supplying application-oriented solutions that result in enhancements for practical problems.⁹⁵ In this problem-oriented fashion, real estate studies scrutinize premises and pre-conditions under which real estate institutions, objects, functions and processes interact with respect to real estate as a whole. In this context the self-understanding of applied science urges the process to not only explain reality (objective input), but also to implement recommendations for management decisions (subjective input).⁹⁶

Real estate as an academic discipline illuminates all kinds of management, institutional, and typological aspects of real estate. The ‘House of Real Estate’ arranges and demonstrates the overall composition of all aspects. In this dissertation the following aspects are under scrutiny (as highlighted in Figure 6):

1. Management Aspects

- a. Real Estate Finance
- b. Real Estate Investment

2. Institutional Aspects

- a. Real Estate Developers
- b. Real Estate Investors
- c. Real Estate Financial Institutions

3. Typological Aspects

⁹⁵ Cf. Schäfers (1997), p. 5.

⁹⁶ Cf. Rottke (2004), p. 6.

- a. Commercial Real Estate
- b. Residential (Income-Producing) Real Estate
- c. Industrial Real Estate
- d. Special Real Estate

The focus of this dissertation, as outlined in the previous parts of this Chapter, is the field of real estate finance. The concept of real estate finance and Asset-Securitisation are merged into Real Estate Securitisation, which represents a capital market oriented form of financing for the property industry. The resulting securities that are issued into the market are backed by all sorts of real estate assets. Hence, these Real Estate Asset-Backed Securities represent real estate investment alternatives for investors. Thus, real estate investment is the flip-side of the Real Estate Securitisation coin. Therefore, Real Estate Securitisation relates to real estate finance as well as to real estate investment. However, as the field of real estate finance is the primary field of interest in this thesis, real estate investment only takes on a minor role in the analysis.

Out of the management aspects result the institutional and typological aspects. The involved parties are real estate investors that are seeking the most efficient form of financing for their investments, real estate developers that are seeking funding for their development projects, and real estate financial institutions that may be disintermediated by Real Estate Securitisation, but that may, however, stay involved by becoming the arranger for such transactions.

The typological aspects are all touched by this thesis as Real Estate Securitisation is not limited to just one property type. All property types offer potential for Securitisation, as long as they are income-producing, and thus incur stable and steady cash flows.

1.5.2 Research Methodology

The research methodology used in this dissertation thesis is case study research. For validating the research framework and to develop theory about the construction and evolution of Real Estate Securitisation markets, three different markets (case studies) are surveyed (Singapore, USA, Europe).

Justification

Case studies are a valid and necessary research tool and can be used to develop or test theory.⁹⁷ As a research method it is generally defined as follows:⁹⁸

1. A method within social science research.
2. It belongs to qualitative research strategies.
3. It documents and illustrates real world events.
4. Case study research is the right method to apply, if:
 - a. The complexity of the research topic is high and multi-dimensional (e.g. Constitution and evolution of Asset- and Real Estate Securitisation markets)
 - b. Primarily qualitative and subjective issues are considered
 - c. The result of the issue is only measurable through the combination of several measurement results
 - d. The issue is mostly unstructured and un-formalized
 - e. Inductive-positivistic insight gaining process seems reasonable
 - f. How and why: ex-post-analysis of evolution factors
 - g. The typical case is representative, not the statistical notion

Many of these attributes of the adequacy of case study research apply to the topic of the underlying thesis. The approach is qualitative, due to the lack of a model for Asset- and Real Estate Securitisation markets and the lack of available quantitative data.

Adaptation to the underlying thesis

The main rationale for using case study research is that the reality is too complex for simplified quantitative methods of aggregate behaviour. The concept of Real Estate Securitisation is too complex so that it cannot be grasped by the available data. The thesis is seeking to create an in-depth analysis of the inception, evolution and state of existence of Real Estate

⁹⁷ Cf. Eisenhardt (1989), p. 532; Jensen, *et al.* (1989), p. 3; Tufano (2001), p. 179.

Securitisation markets. In this context, the theoretical research model formed for Asset-Securitisation markets in general and Real Estate Securitisation markets in specific tries to explain the relevant market including the environments, the forces working on the environments, the actors and relationships between those economic agents. The aim is “to identify how forces and actors interact to produce outcomes.”⁹⁹

A case is “a phenomenon of some sort occurring in a bounded context”.¹⁰⁰ In this respect, three geographic locations are chosen (Singapore, USA, Europe) to come to a generalized evolution model. Thereby this dissertation is developing new theory about the evolution, drivers, environments and core determinants of Asset- and Real Estate Securitisation markets. The cases have been selected by representative selection criteria – each case study represents one market from each continent (Asia, North-America, Europe) that has developed a Real Estate Securitisation market. All markets have been surveyed in the same format and all markets followed a specific evolution process. Thus, the evolution model can be generalized and its findings can be extended beyond the immediate case studies, so that it can be applied to the case of Germany.¹⁰¹

Data Gathering

Data gathering methods that can be applied in a case study research are comprised of:¹⁰²

1. Observations
2. Interviews
3. Document review and content analysis

Hence, the data gathering process for this dissertation was also structured in this way. The first step for the empirical field work executed for this dissertation

⁹⁸ Cf. Meyer (2003), p. 477.

⁹⁹ Lizieri (2003), p. 2.

¹⁰⁰ Lizieri (2003), p. 2.

¹⁰¹ Cf. Lizieri (2003), p. 2.

¹⁰² Cf. Mayer (2002), p. 34; Stake (1995), p. 114.

was an observation of the relevant market.¹⁰³ The next step in the process were exploratory interviews that were executed with industry professionals in 2002. Out of the observation and the exploratory interviews resulted the research framework and the outline of this dissertation, which in turn lead to the composition of structured interviews. Those structured interviews were executed in 2003 in three locations: Singapore, USA and Europe.¹⁰⁴

1.6 Outline of the Research

After delineating the research problems, the research questions, the importance and objectives of the research in the first chapter of the dissertation thesis, the second chapter goes into principles and fundamentals of Asset-Securitisation.

The third chapter defines and differentiates Real Estate Securitisation. This part combines real estate related issue with Asset-Securitisation related principles into the concept of Real Estate Securitisation. In this respect, the thesis builds up a theoretical research framework for the analysis of Securitisation markets and the derivation of minimal requirements for the evolution of a Real Estate Securitisation market. It defines the different environments influencing the market and it classifies the three determinants of Real Estate Securitisation – Assets, Borrowers (Sellers/Originators/Sponsors)¹⁰⁵ and Motives.

Because no adequate research framework exists, yet, an international comparison (empirical study 1) including Asia (Singapore), North-America (USA) and Europe will be conducted in Chapter 4. This chapter will be subdivided into sub-chapters relating to the identified research framework: first the relevant market will be displayed, then the environments will be analysed and then core determinants will be identified for the specific markets. The purpose of this part of the study is to validate the research framework and to derive a Real Estate Securitisation Evolution Model (patterns, drivers, typical

¹⁰³ The observation of the relevant market was done through an internship at Deutsche Bank in London, which at the time had the biggest Asset-Securitisation group in Europe.

¹⁰⁴ A transcript of the structured interviews is attached in the appendix of this dissertation, p. 547.

¹⁰⁵ There is a definition difference between seller, originator and sponsor, but in any case what is meant by any of these terms is the company that seeks financing, i.e. the borrower.

environments, typical determinants, minimum evolution requirements). This part will analyze the typical determinants: the typical borrowers, the assets that they own or control and the motives they have concerning their real estate financing decisions.

Subsequently, the results out of the international comparison will be applied to the case of Germany in Chapter 5. For this Chapter another empirical study will be examined (lender survey – empirical study 2). The lender survey was conducted with the 205 biggest real estate financing institutes in Germany (carried out in 2003). This was done to analyze the lenders' perspectives of real estate financing, the implications of Basel II on real estate lending, and the impact on Asset-Securitisation and Real Estate Securitisation. The results of the conducted survey, together with the analysis of the actual real estate financing environment, will be the empirical evidence that clarifies the need to create a feasible framework for Real Estate Securitisation in Germany.

The following part will subsequently test the minimum requirements derived in Chapter 4.5.4 against the German framework for Securitisation. The summary of this analysis will depict obstacles and problems. After that, the thesis will hint at potential solutions, i.e. laws and regulations that have to be changed to create a viable framework in Germany.

The dissertation thesis will close with a conclusion and outlook. The outline is summarized in the following illustration (Figure 7: Conceptual Dissertation Outline).

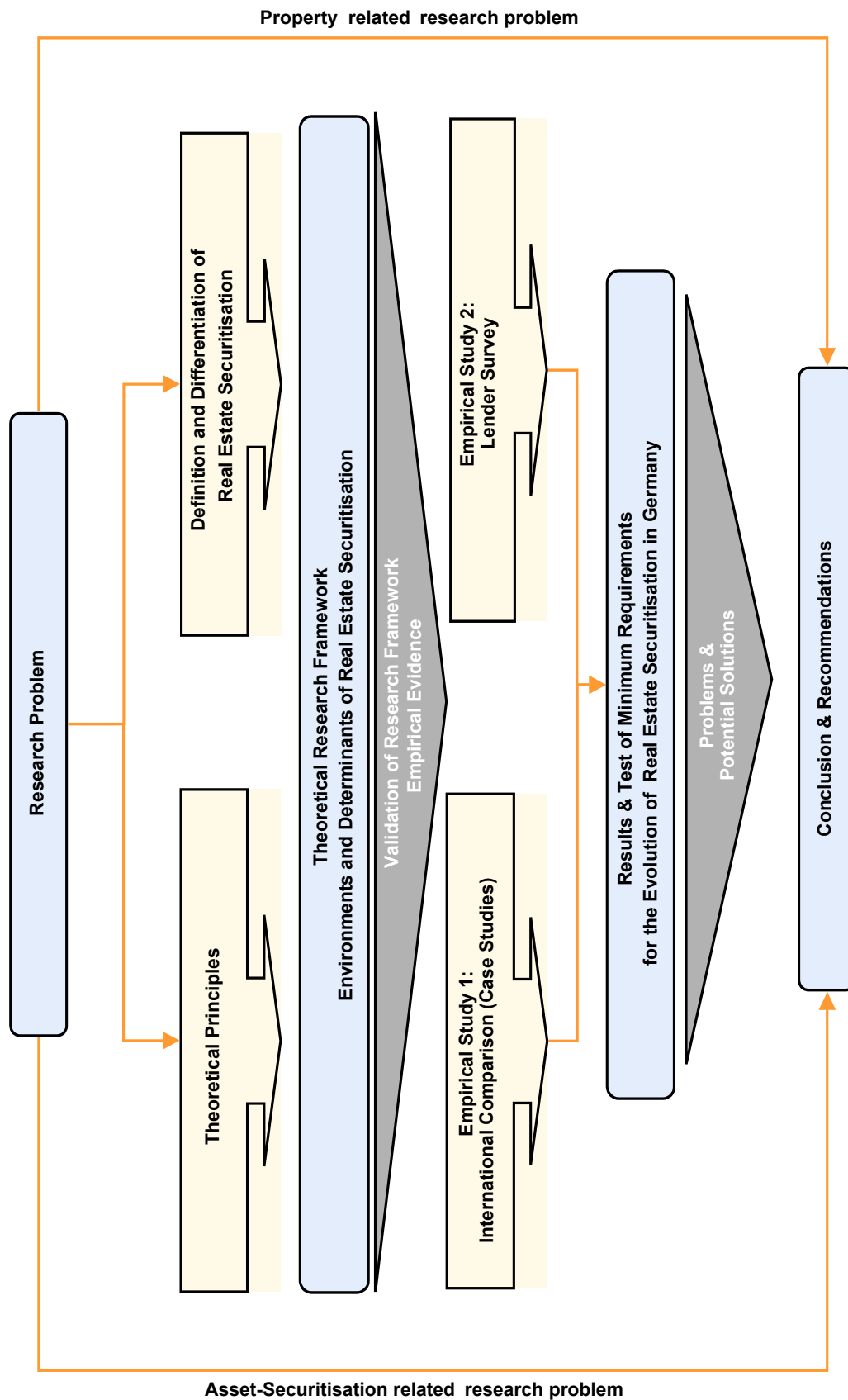


Figure 7: Conceptual Dissertation Outline

2 Fundamentals of Asset-Securitisation

This chapter intends to lay the foundation for the analysis in the later chapters of this thesis. It shall give an overview about the basics and fundamentals of Asset-Securitisation.

2.1 Defining Principles

The definition for Asset-Securitisation in industry as well as academic literature is quite precise, whereas there is no clear definition of Real Estate Securitisation and how it differs from Mortgage-Backed (Loan) Securitisation. There exist different definitions in literature about Commercial Mortgage-Backed Securities (CMBS), but those are mainly US-stamped and do not principally overlap with Real Estate Securitisation. However, the European definition of CMBS partly incorporates transactions that fit into the definition of Real Estate Securitisation. Hence, overlapping between Real Estate ABS and CMBS can be observed.¹⁰⁶

In Europe the defining terms for asset classes and transaction structures have evolved over time and are constantly changing, coined by industry needs. An empirical study conducted with the biggest 205 German credit institutes showed that a lot of people talk about Securitisation and Real Estate Securitisation, but only few people can really define it.¹⁰⁷ Therefore, there is no clarity, especially because European academic literature in this field is limited.

2.1.1 Structured Finance

The generic term for all Asset-Backed Security i.n.S., Collateralized Debt Obligation, Residential Mortgage-Backed Security and Commercial Mortgage-Backed Security transactions in Europe is Asset-Securitisation or Asset-Backed Securities.

¹⁰⁶ Cf. Rügemer and Siemes (2002), p. 757.

¹⁰⁷ Refer to Chapter 5.1.

In the US the differentiation of terms is different than in Europe or Asia. Here the generic term under which everything can be summarized is Structured Finance. Most departments in US investment banks are organized in that way. The department is called Structured Finance Group and they deal with everything from ABS to CDO to CMBS (including Credit Tenant Lease Securitisation).¹⁰⁸

Securitisation or Asset-Securitisation is a form of structured finance. Structured finance also encompasses project finance, some types of equipment and cross-border finance, and some other kinds of secured financing. One can also argue that certain types of derivatives would fit into the structured finance category. Examples would include structured medium-term notes and structured credit products that use credit derivatives such as synthetic collateralized debt obligations and credit-linked notes.¹⁰⁹

The common theme in a structured finance transaction is that the risk of the collateral somehow is modified or redistributed among different classes of investors by the use of a structure. Securitisation is primarily concerned with monetizing financial assets in such a way that the risk is tied primarily to their repayment, rather than to the performance of a particular project or entity.¹¹⁰

2.1.2 Asset-Securitisation

Asset-Securitisation can be defined as a process of packaging individual receivables, loans and other debt instruments, converting the package into a security or securities, and enhancing their credit status or rating to further their sale to third-party investors.¹¹¹ The process converts illiquid individual assets (receivables or debt instruments), which cannot be sold readily to third-party investors into liquid, marketable securities. This creates a secondary market for the underlying receivables and other various illiquid assets.¹¹² Each pool is backed by specific collateral rather than by the general obligation of the issuing

¹⁰⁸ Cf. Wolberg (2003), Interview 8, p. 554.

¹⁰⁹ Cf. Standard & Poor's (2003), p. 1.

¹¹⁰ Cf. Roever and Fabozzi (2003), p. 6.

¹¹¹ Cf. Raikes (2003), p. 34.

¹¹² Cf. Achleitner (2003), p. 413.

corporation. Investors purchase a proportionate share of the assets and the bundle of rights linked to the assets, not a general obligation typical for traditional corporate debt.¹¹³

In short, Asset-Securitisation is the issuance of debt certificates that are secured by cash flows (receivables) from different kinds of assets. Hence the issued securities are called “Asset-Backed Securities” (ABS).¹¹⁴

Thereby Securitisation or Asset-Securitisation is the generic term for any kind of Asset-, Loan- or Receivable-Securitisation.¹¹⁵ It is derived from the word security, because illiquid and sometimes even intangible assets that generate a constant cash flow are formed into a tradable security and are floated on the debt market.¹¹⁶

Securitisation as a financing product belongs to the group of structured finance products that summarizes various kinds of products that are innovative and require a fair amount of transaction structuring. In general Asset-Securitisation has similar characteristics to Asset-Factoring. There is also a true sale, which creates funding, however the purchase of the assets is not refinanced over the capital markets, but over the balance sheet of the buyer (factor).¹¹⁷

Since Asset-Securitisations are complex structures that must create bankruptcy remote Special Purpose Vehicles (SPV), there always has to be some sort of security in case the originator goes bankrupt, or the contracts that are the basis for future cash flows are not adhered to.¹¹⁸

2.1.3 Asset Classes

In the normal case of a receivable Securitisation the security for the transaction are the securitised assets themselves, i.e. the receivables. This is possible, because usually the underlying pool of debtors is very large and the debtors are

¹¹³ Cf. Kendall (2000), p. 1.

¹¹⁴ Cf. Kürn (1997), p. 17.

¹¹⁵ The term Asset-Backed Securities (ABS) also functions as a generic term for all kinds of Asset-Securitisations. Cf. Kendall (2000), p. 2.

¹¹⁶ Cf. Büttner (1999), p. 24.

¹¹⁷ Cf. Bigus (2000), p. 465.

¹¹⁸ Cf. Hug (2000), p. 57.

spread over various industries and regions. Consequently the probability of default is very low. However, in transactions that involve future cash flows such as future lease receivables, that result out of contractual relationships with a higher degree of uncertainty and therefore higher default risk, additional collateral is required. On the loan Securitisation side, there can either be Securitisations of unsecured corporate loans (e.g. Collateralised Debt Obligations), where the credit of the borrowers, the loan agreements and the pooling diversification effectively function as the security for the investors, or there can be Securitisations of secured loans (e.g. Mortgage-Backed Securities), where the assets (the interest and principle of loans) are enhanced by additional collateral, such as a mortgage.

Asset-Backed Securities

The term Asset-Backed Securities (ABS) comprises securities and certificates of indebtedness representing payment claims against a special purpose vehicle (SPV) established solely for the purposes of the ABS-transaction. The payment claims are 'backed' by a pool of 'assets', which are transferred to the special purpose vehicle and serve as security, largely for the benefit of the ABS-Investors.¹¹⁹

A comprehensive global definition for asset classes within the universe of Asset-Securitisation does not exist. There are three different main asset classes observable within Asset-Securitisation. Until now it is mainly Mortgage-Backed Securities (MBS), Collateralised Debt Obligations (CDO) and Asset-Backed Securities in the narrower sense (ABS i.n.S.). However, but as the Securitisation market is mainly driven by innovation of new Asset-Securitisations, the universe of asset classes is further expanding. The reason why it is defined as ABS i.n.S. is that the term Asset-Backed Security in Europe also functions as the generic term for all kinds of Asset-Securitisations. The asset classes shown below subdivide themselves into further sub-asset classes: Commercial MBS (CMBS), Residential MBS (RMBS), Collateralised

¹¹⁹ Cf. Gehring (1999), p. 1.

Loan Obligations (CLO), Collateralised Bond Obligations (CBO) and other types of ABS that are backed by a range of different receivables as shown below.¹²⁰

Mortgage-Backed Securities

Mortgage-Backed Securities (MBS) are mainly bank-originated securities that are backed by a pool of either residential or commercial mortgage loans. These securities therefore represent payment claims against an SPV that are backed by a pool of secured loans, i.e. mortgages that comprise cash flows from real estate loans. In short these securities represent derivative real estate cash flows.¹²¹

Commercial Mortgage-Backed Securities

Commercial Mortgage-Backed Securities (CMBS) are securities that are backed by one or more pools of mortgage loans. CMBS are backed by loans secured by commercial properties, which may include multifamily housing complexes, shopping centres, industrial parks, office buildings, and hotels.¹²²

Commercial Mortgage-Backed Securities are mainly bank-originated securities that represent payment claims against an SPV that are backed by a pool of secured loans, i.e. mortgages that comprise cash flows from real estate loans.¹²³ In short these securities represent derivative real estate cash flows originated by banking institutions, whereas Real Estate Asset-Backed Securities represent original cash flows originated by non-banks, i.e. Corporates and Governments. This is explained in the next part.

¹²⁰ Cf. Skelton and Dornhofer (2004), p. 1; Taylor (2004), p. 2; Vrensen and Toft (2004), p. 3.

¹²¹ Cf. Herrmann (2002), p. 175.

¹²² Cf. Standard & Poor's (2003), p. 7.

¹²³ Cf. DeMichele and Adams (1999), p. 73.

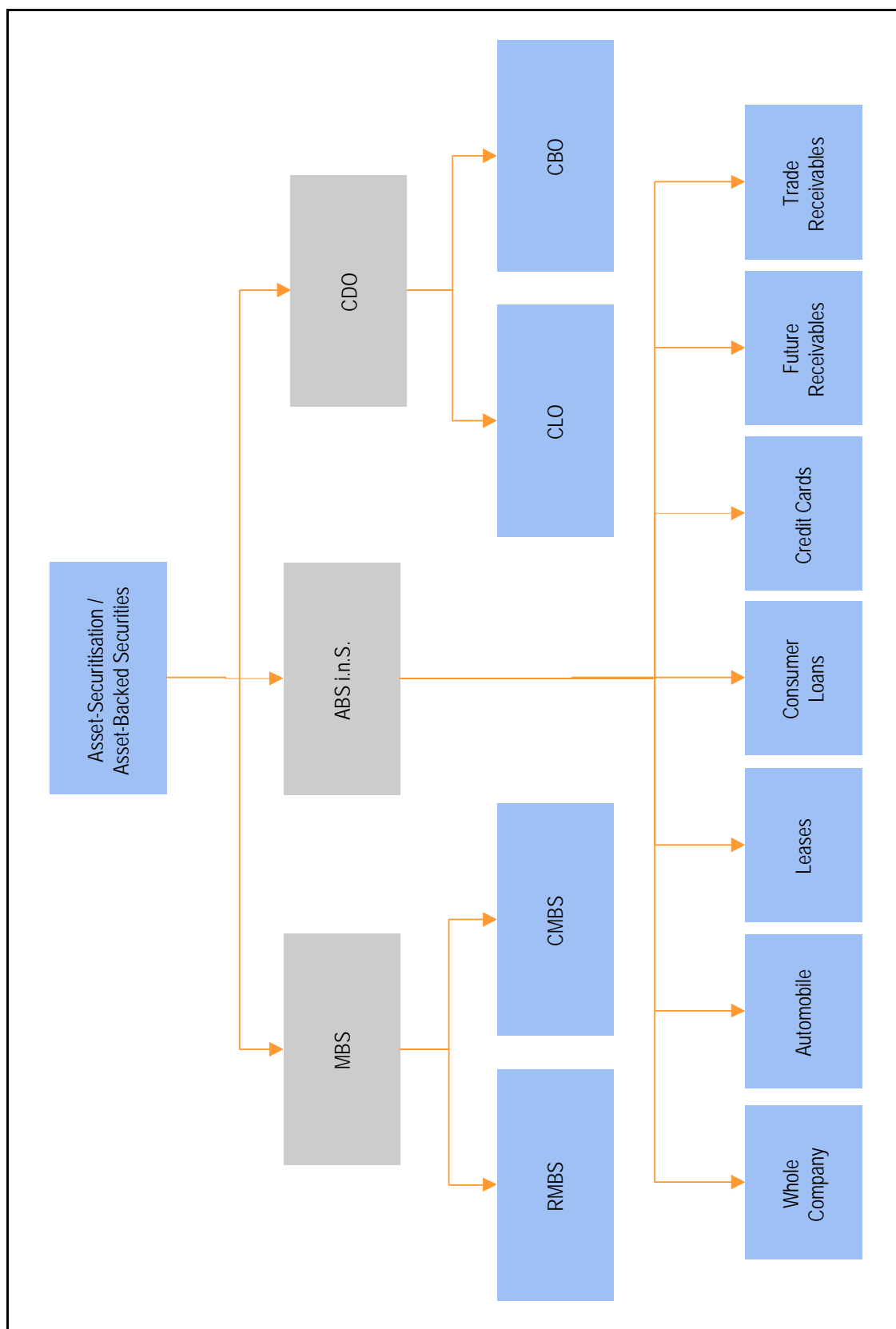


Figure 8: Differentiation of Asset-Classes with in Asset-Securitisation in Europe¹²⁴
 Source: Authors Compilation

¹²⁴ Cf. Seymour (2004a), p. 1.

Real Estate Securitisation

Broadly, any asset, which produces a predictable and dependable income stream or receivable, can be securitised. Because income will be required to service interest payments due on the securities, the existence of a steady or predictable income stream is a fundamental requirement. This holds true for real estate.¹²⁵

However, until now Real Estate Securitisation is not considered to be a part of the Asset-Securitisation universe. While there is no common and recognized definition of Real Estate or Property Securitisation,¹²⁶ the underlying dissertation defines it as the Securitisation of real estate assets, i.e. real property or real estate receivables. Real Estate Securitisation comprises of the Securitisation of current and future real estate cash flows and receivables, as well as the Securitisation of property values (e.g. in the form of the real estate itself). The securities that represent the claims against the SPV that holds the real estate assets are referred to as Real Estate Asset-Backed Securities (RE ABS).¹²⁷

In short Real Estate Securitisation describes the financing of property through the Securitisation of real estate cash flows and property values without the bank as a lending intermediary. However, the bank will take part in the transaction, not as the lending institution, but as the arranger of the financing. Therefore the bank is not going to commit valuable equity. It will only earn the structuring fees. In this constellation the lending spread can be distributed between the originator, the arranger and the investors.¹²⁸

Whilst it is probably fair to say that the majority of Real Estate-Backed Securitisations are supported by mortgages loans, the market in Europe is seeing more and more transactions, which are based on real estate cash flows.

¹²⁵ Cf. Pickersgill (2001), p. 125.

¹²⁶ Real Estate Securitisation and Property Securitisation are exchangeable terms. In order to avoid confusion in this thesis only Real Estate Securitisation will be used.

¹²⁷ Cf. Rügemer and Siemes (2002), p. 771.

¹²⁸ Cf. Schulte, *et al.* (2002), p. 780.

Hence, the cash flows from the actual real estate are being securitised and not the cash flows from the real estate loans.¹²⁹

There were already several Real Estate Securitisations in Europe during the past 7 years, some in Italy and France, but most of them in the United Kingdom. The assets included:

- Student Accommodation (Unite Finance One, Owengate Keele – UK).
- Shopping Centres (Trafford Centre - UK)
- Supermarket Chains (Sainsbury's, Marks & Spencer's - UK)
- Government and Corporate Apartments (Annington - UK, Powerhouse Finance – France, SCIP I & II - Italy)

2.2 The typical Asset-Securitisation Process

2.2.1 A Generalized Transaction Structure

Asset Backed Securities are complex financing tools, that originate cash flow and that create complicated transaction structures. It is this complexity, as well as the many involved parties that make the understanding of those transactions very difficult. Each Asset-Securitisation requires a 'Taylor-Made Structure'. In this respect the arranger/sponsor has to take all the specific characteristics of the transaction into account, i.e. the originators' needs, the assets that are to be securitised and the specific national regulatory and legal peculiarities. The range of assets, which are being securitised, continues to grow, however the concepts are generally the same, no matter what the underlying asset. Therefore this chapter will introduce a basic model structure that is similar across nearly every ABS transaction.¹³⁰

Starting point of an Asset-Securitisation are the assets that are to be securitised. These can be a multitude of different assets as they have been defined above. However, most of the time the securitised assets can be related to some kind of a receivable of a creditor towards a multitude of different

¹²⁹ Cf. Vrensen (2003a), p. 1.

¹³⁰ Cf. Bhattacharya and Fabozzi (1996), p. 1.

debtors. From these receivables there arise financial obligations, i.e. future cash flows of the debtor towards the creditor. In the following we will just refer to them as assets in general. The owner and seller of the assets is called the “originator” of the Securitisation.¹³¹

To a transaction structure, there are usually two sides, the structural side and the operational side. In general the features of the structural side are essential for the process until the issuance of the securities, whereas the operational features are important for the functioning of the transaction in the time thereafter and until maturity. At the beginning of the transaction the originator will assign an arranger/sponsor that is in charge of putting the transaction together. First, the arranger sets up a transaction specific special purpose vehicle (SPV) on a nearly non-recourse basis. Simultaneously the arranger will assign the different parties involved, i.e. the Rating Agencies (which are, besides the arranger the most important party in the process), the Lead Manager / Issuer, the Credit Enhancers (Banks and Monoline Insurers), the Trustee and the Service Agent. Together with all of them the transaction structure will be put into place.¹³²

The first step in the transaction process is that the originator sells the assets that are to be securitised to the established SPV. The SPV is specifically founded for this one transaction and cannot be used for other transactions. Subsequently the SPV pools the assets, which will be the backing for the issued securities, as the term Asset-Backed Securities implies. The SPV should be a legally and economically independent entity that is incorporated in a mainly restriction-free and tax-neutral legal system. It should be an independent entity that is supplied with a minimum of equity; it is usually a trust that is incorporated in some offshore banking environment (e.g. Cayman Islands, Jersey, Curacao or Ireland). The sole purpose of the SPV is the purchase of assets and their refinancing. The SPV refinances itself by issuing ABS-papers on the capital markets.¹³³

¹³¹ Cf. Hug (2000), p. 35.

¹³² Cf. Böhmer (1996), p. 30.

¹³³ Cf. Galvin (2003), p. 257; Moon (2003), p. 348; Pascoe and Adams (2003), p. 344.

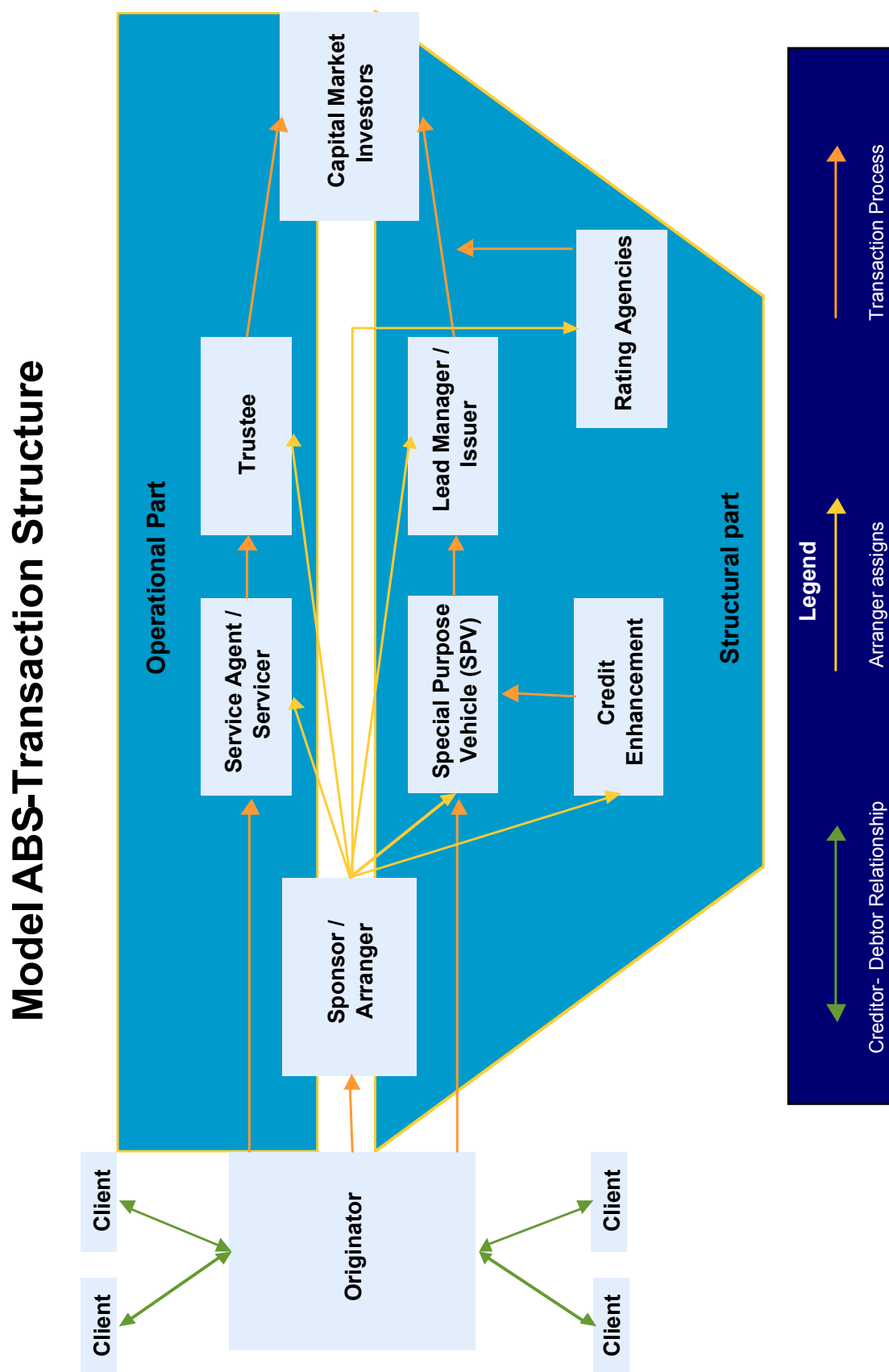


Figure 9: Subdivision of Assets-Classes including Real Estate Securitisation

Source: Authors Compilation

The issuance takes place in cooperation with a bank consortium (Lead Manager / Issuer) that is mostly comprised of investment banks, commercial banks or both. The bank consortium places the securities with mostly institutional investors. The cash flows from the asset-pool are subsequently used to pay interest and principal to the investors. The asset portfolio can, but it does not have to be the only underlying collateral for this transaction. The asset could for instance be a portfolio of loans and a supplement collateral could be the mortgages that are used to secure the loans; or the asset could be real estate rental cash flows that are secured by the underlying real estate itself as additional collateral. The transaction will be enhanced by credit enhancement measures (internal and external).¹³⁴

The involved rating agencies are in charge of the quality rating of the security, by examining the securitised assets and by testing the transaction structure. In general, the rating agencies provide the ABS transaction with a high rating, because of the high quality and the diversification of the assets. The investors take on the credit risk of the securitised assets, which is the key concept of Asset-Securitisation. However, in order to get a good rating, which is necessary for the originator to be able to place the issuance, credit enhancement measures are required to make the issued papers more attractive for investors. This makes it a distinctive feature of ABS, unlike corporate bonds, which are not secured.¹³⁵

A variety of internal and/or external credit supports are employed to increase the likelihood that investors will receive the cash flows to which they are entitled. Internal credit enhancements are subordination, over-collateralisation, excess spread accounts, reserve funds, whereas external credit enhancements are third-party or parental guarantees, Letters of Credit (LOC), Cash Collateral Accounts or the assent to repurchase the asset by the originator.¹³⁶

During the operational term of the transaction the asset portfolio has to be serviced. The service agent takes on this task. For the security of the investors

¹³⁴ Cf. Lindtner (2001), p. 12.

¹³⁵ Cf. Michaud (1996), p. 269.

¹³⁶ Cf. Fabozzi and Bhattacharya (1996), p. 1; Hsu and Mohebbi (1996), p. 277.

an independent trustee is being appointed with the obligation to supervise the transaction and the following payments. He has the priority right to access the asset pool of the SPV. Moreover he responsible for the servicing of the main account and the transmission of cash flows to the investors.

2.2.2 Participants in a Securitisation Transaction

As explained in the previous chapter an ABS transaction involves many parties. Each party has different tasks and motives, it is important to understand what they do and why they do it. Therefore the following paragraph will go deeper into the tasks of the different participants:¹³⁷

Originator/Borrower/Seller

The originator of an ABS transaction can be a bank or a corporate or the federal government of a country. The governments however have just only recently started to use the Securitisation technique as a financing tool to lower their deficits. The originator sells a part of its illiquid assets including all collateral attached to those assets on a non-recourse basis to an SPV. The assets have to be chosen using certain criteria that will be explained in a later part of the paper. Most of the time the originator also takes on the tasks of the “Servicer”, since he has originated the assets.

Special Purpose Vehicle (SPV)

The task of the Special Purpose Vehicle is to buy the assets that the originator has generated in its business operations (e.g. receivables) or other fixed assets (e.g. real estate) that the originator wants to dispose of. It structures the assets and pays the originator a certain price for his assets. Then it refinances the purchase price by placing securities (“notes”) privately with institutional investors or publicly by offering the notes on the capital market. The notes are served by the cash flows of the assets upon which they are based. The assets are also available to the holders of the securities as a basis for liability (collateral). In the case of receivables for instance, the purchase price of the assets is based on the present value of the receivables portfolio minus the structuring costs.

The use of an SPV is critical to the creation of ABS, because the SPV stands between the originator of the underlying assets and the issuer of the securities. The key structural feature of an SPV, which enables it to insulate the trust from the originator, is bankruptcy remoteness. This is normally achieved by a true sale of the assets to the SPV by the originator. This means that the originator no longer has ownership rights to the assets, such that a trustee in bankruptcy of the sponsor would be unable to recover the assets or their proceeds. As a result, the ABS-issuing trust's ability to pay interest and principal should remain intact even if the originator were to go bankrupt.

Bankruptcy remoteness, along with certain other aspects of the SPV's and trust's structures and the extra support provided by credit enhancement measures, enable the ABS transaction to receive its own credit rating, independent of that of the originator. This is important for investors, because the originator may well have a lower credit rating than the rating carried by most ABS.

Arranger/Sponsor

The arranger sets up and administrates the SPV. Moreover his tasks include the structuring of the transaction and the coordination of the different parties that are involved in the deal. He determines the legal, credit enhancement and cash flow structures, and chooses the rating agencies. Most of the time Investment Banks function as Sponsors of ABS transactions; however some Corporates have their own divisions and subsidiaries that sponsor transactions (e.g. GE Capital).

Service-Agent / Servicer

The servicer is in charge of the debit accounting and to send reminders to the debtors. He takes care of the timely submission of incoming cash flows to the trustee. The servicer has to regularly account for his activities that are linked to the transaction.

Trustee

¹³⁷ Cf. Büttner (1999), p. 20; Rosar (2000), p. 15.

The trustee is the intermediary between the service agent and the investor. Usually the trustee is called into the transaction to secure the interests of the investors. The trustee regularly receives the payments from the service agent onto specific trustee accounts on previously specified dates. Depending on the payment structure of the ABS transaction the trustee pays out the cash flows directly to the investors or he invests the money until the next pre-specified interest and principal payment date. This way cash flows can be adjusted to the needs of the investors.

Investor

Generally the originator of an Asset-Securitisation has an information advantage towards other involved parties. These information asymmetries cause an inefficient investment decision on behalf of the investor. The agents on the capital market solve this problem by signalling the quality of the transaction. One part of this signalling game is the involvement of rating agencies as an independent third party. Through the use of the transaction rating, the originator can show the quality of his issuance by qualifying the issued securities for certain standardized rating classes. Institutional investors are used to base their investment decision on such ratings and therefore the rated notes have a high probability of being placed.

Rating Agencies

Rating is the risk and quality assessment of issues, issuers, debt, debtors, receivables, creditors and other assets. The rating agencies' task is to screen and evaluate the full transaction and the involved parties. In the case of an Asset-Securitisation they determine if the issuer is legally and economically able to fulfil the requirements that are laid upon him by the issuance of the notes in time and to the full satisfaction of the investor. The quality of the transaction is determined by classifying the ABS rating in the usual bond rating letter scheme (e.g. 'AAA' for the best quality in an S&P rating). Three rating agencies exist that are able to do the ABS rating: Moody's Investor Service („Moody's"), Standard & Poor's („S & P's") und Fitch IBCA. Usually two out of the three agencies are chosen to work out an independent rating for the ABS issue.

2.2.3 Term vs. Asset-Backed Commercial Paper Conduit Securitisations

There are two different types of Securitisations depending on the maturity of the paper issued: Term Securitisations (maturity longer than 1 year) and Asset-Backed Commercial Paper (ABCP) Conduit Securitisations (maturity shorter than 1 year).

Although they share many of the elements, term and ABCP conduit transactions operate and function differently:¹³⁸

1. Term Securitisations (Public & Private)

In a typical term transaction, a single originator sells a specified pool of receivables into a Securitisation that has funded the purchase by issuing bonds backed by the pool. The type of SPV used to issue the debt is usually a function of the type of asset being securitized. In the US, amortizing assets such as auto loans rely predominantly on either a grantor or an owner's trust as the funding SPV. Although a grantor trust is slightly simpler to use and provides a cleaner answer to the issue of entity-level taxation, it suffers from certain operational drawbacks. Grantor trusts are extremely limited in their ability to reinvest collected cash flows and generally must pass all cash through to investors shortly after collection. Other important limitations include an inability to purchase new receivables after the initial sale (except for limited replacement of defective or ineligible receivables) and an inability to fund themselves using multiple senior interests.

While these structures work well for assets with lives that span periods of years, they are ineffective for collateral with a life span of only weeks or months. In the term market, short-lived collateral like credit card or trade receivables is securitized using revolving trust structures. The life of a revolving structure is characterized by two phases. During the first, the revolving phase, receivable cash flow, net of interest and other expenses, is used to purchase new receivables. During the second phase, the payout or amortization period, net collected cash flow is used

¹³⁸ A comparison table of ABCP vs. ABS term deal is added in the appendix: ABCP vs. ABS Term deals , p. 548.

to retire debt. Because it can reinvest collected cash flows in new receivables and, subject to certain limitations, can issue multiple series of debt, the master trust is the form of SPV most commonly used for revolving term Securitisations.¹³⁹

2. Asset-Backed Commercial Paper Conduit Securitisation (Public)

“An asset-backed conduit is a special-purpose corporation that regularly buys interests in pools of financial assets from one or more sellers and funds these purchases by issuing commercial paper. Within the world of conduits are two major types: single-seller and multi-seller. As its name suggests, a single-seller conduit buys interests from only one seller and is usually a subsidiary of the conduit's sponsor. Single-seller conduits are self-administered programs that can be costly and administratively burdensome for the sponsor to operate. Still, single-seller conduits can be effective solutions for sellers that generate, and can spread costs over, a high volume of receivables. For these reasons, single-seller conduits make up a small fraction of the overall conduit market and most often are operated by very large finance companies. Multi-seller operations dominate the asset-backed conduit market. Again as the name suggests, multi-seller conduits invest in receivable interests and asset-backed securities issued by multiple sellers. Most multi-seller conduits are sponsored and administered by large commercial banks and the sellers are, more often than not, bank customers. Conduit Securitisations share some similarities with term transactions. Conduits can securitize virtually all types of assets found in the term market. They also must be structured to address many of the same bankruptcy, tax, and accounting issues that are faced by term Securitisations. As with a term transaction, a two-step sale structure can be used to create an off-balance-sheet, bankruptcy-remote transaction that functions as debt of the seller for tax purposes. Beyond these similarities, conduit Securitisations differ from term transactions in numerous ways, particularly with respect to funding, methods of credit enhancement, and

¹³⁹ Cf. Roever and Fabozzi (2003), p. 15.

the use of liquidity facilities. One obvious difference from term transactions is that conduit transactions are funded using commercial paper. Commercial paper funding costs and conduit program fees are passed on to the seller. Because the price of commercial paper is continually changing, funding costs change every time old ABCP matures and new ABCP is issued. From a seller's perspective, these changing costs are very similar to funding with floating-rate debt. Because this can create basis risk between the funding costs and the yield earned on the assets underlying the Securitisation, conduit operators often require that an interest-rate hedge be put in place for the life of the transaction.¹⁴⁰

2.2.4 Asset Requirements/Asset Securitisation Criteria

First of all an Asset-Securitisation legally requires a sale of the asset and the assignment of claims attached to those assets. Thereby the asset pool has to satisfy certain legal and economic distinguishing features to qualify for an ABS transaction. These will be explained in the following paragraph.¹⁴¹

Assignability and Distrainability

The originator of the asset can only sell those assets that are legally assignable to the buyer. Therefore the receivable for example shall not be strictly personal or there shall not be a clause in the underlying contract that forbids a cession of the receivable. Moreover the receivable must not be nonleviable.

True Sale

As long as the transaction structure does not comprise a synthetic Securitisation, the sale of the assets has to be a 'True Sale' and it must not qualified as a grant of a loan. In case the sale of the assets is determined to be a grant of a loan, this will lead to lengthening of the balance sheet and subsequently to a worsening of the capital-to-asset ratio. In addition the true sale is important in the case of the insolvency of the originator. If it turns out that there has been no true sale of the assets, then in the worst case the trustee in

¹⁴⁰ Cf. Roever and Fabozzi (2003), p. 15.

¹⁴¹ Cf. Roever and Fabozzi (2003), p. 9.

charge of the bankruptcy of the originator would be able to recover the assets or their proceeds. The assets would fall into the bankruptcy estate of the originator and the SPV would not be able to pay the note holders anymore. In Germany the courts have ruled that in order to determine if the transaction is classified as a true sale, the criteria to determine a true or an untrue factoring should be used.

Apart from the true sale criteria, certain other criteria has to be fulfilled for the transaction to qualify for an off-balance sheet treatment:

- Legal isolation of the assets from the seller; the transferred assets are put beyond the reach of the transferor and its creditors.
- The new owner of the assets has the right to pledge or to exchange the assets.
- The seller does not have the right to buy the assets back.

Transaction Size

Since Asset-Securitisations are of a complex nature that causes high fixed expenses, usually there has to be a minimum volume of assets to be securitised in order for the transaction to be economically feasible. In the current literature there is no unanimous definition of the minimum volume; however, the numbers range from €50m to €100 m, whereas in practice investment banks won't start working on a transaction that has a size smaller than €250m. This is the benchmark for public transactions. If the originator decides to place the notes privately there have already been transactions made that have been a lot smaller than €250m. Nonetheless a minimum size of €50m has to be reached for the benefits of the asset-Securitisation to exceed the costs implied in a Taylor-made transaction structure. If one originator does not fulfil the minimum criteria, then there is also the possibility of pooling originators in a multi-seller model.

Asset-Servicing Criteria

The originator of the assets does not only have to separate the securitised assets legally from his estate but also technically. Therefore he needs to have a good electronic data processing by which he can separate the cash flow

streams of the sold from the cash flow streams of the unsold assets. Subsequently the originator most of the times takes on the tasks of the service agent for two reasons: firstly because he already has all the data needed to service the assets, and secondly because he wishes that the relationship with the customer (in the case of receivables) is not stressed. Therefore the originator will function as the service agent and will book the securitised receivables on separate accounts.

Asset Structure

The first requirement for the asset structure is that there has to be some kind of cash flow related to the asset that is to be securitised: "If it flows, securitise it!" Moreover the asset pool should ideally have a multitude of nearly homogeneous and relatively small claims against as many as possible debtors. Apart from that there have to be a long history of data, so the credit risk of the underlying assets can be quantified. The main questions in this context are: What is the default rate of the assets? What is the prepayment rate of the assets? How many payments are delayed?

A regional and demographic diversification as well as a high credit standing of the debtor or the assets is of high importance. Moreover the assets should have a certain seasoning (i.e. age) and the weighted average life of the assets (i.e. maturity) should exceed one year.

2.2.5 Benefits of Securitisation

In the USA today, Loan Securitisation and especially Mortgage-Backed Loan Securitisation play a decisive role. During the past five years, securitised loans have become the major financing instrument in the US. However, the limitations of Securitisation have also become evident. When the basic assumptions change, as is the case with the current downturn in the economy. Many people are no longer participating in the belief that working with a single bank gives them greater flexibility. But here as well, it is not the type of finance that is

decisive, but rather the entrepreneurial vision that can breathe life into a project.¹⁴²

Securitisation Benefits

“Securitisation appeals to a broad range of companies, large and small, in many different industries. To grasp why it is a popular financing alternative, it helps to have an understanding of the many advantages Securitisation provides relative to more traditional sources of funding such as bank lines or corporate debt. The more significant advantages of Securitisation are discussed below:

1. The Potential for Lower Funding Costs.

Financial assets with predictable payment characteristics can, when pooled together, offer a more attractive risk and return profile than the credit of the company that originated them. Many financial assets can be used to structure securities of higher credit quality, and lower cost, than the originating company could issue on its own. Through Securitisation, a company can issue debt that is de-linked from its own credit ratings, and therefore often can achieve lower cost of funds for its operations.

2. Source of Liquidity.

Historically, the ability of small- and medium-sized firms to grow has been constrained by their limited ability to borrow from traditional sources. Because Securitisation provides a reliable and relatively unconstrained source of off-balance-sheet financing, it mitigates traditional funding constraints and can promote a company's growth.

3. Diversified Funding Source.

The use of Securitisation has not been limited to small or non-investment-grade firms. To the contrary, many large, highly rated companies rely on Securitisation in conjunction with other forms of borrowing as a means of diversifying their funding sources. Securitisation is another arrow in the quiver of corporate treasurers. Treasurers often can craft a more cost-efficient capital structure by employing

¹⁴² Cf. Friedemann (2003), p. 9.

Securitisation instead of, or in conjunction with, more traditional funding sources like bank loans or corporate debt. In addition to their cost efficiency, Securitisations also typically lack the types of restrictive financial covenants that often accompany bank loans or corporate debt.

4. Off-Balance-Sheet Financing.

Most Securitisations transfer assets and liabilities off the balance sheet, thereby reducing the amount of the originator's on-balance-sheet leverage. This off-balance-sheet financing can help improve the securitizer's return on equity and other key financial ratios. However, many equity and corporate debt analysts now consider both reported and managed (i.e., reported plus off the balance sheet) leverage in their credit analysis of securitizing firms.

5. Less Public Disclosure Than Competing Methods of Financing.

For privately held or non-U.S. firms, Securitisation provides a means of financing that does not require complete financial disclosure to investors, rating agencies, or regulatory authorities, as more direct forms of financing often do. Even for publicly issued Asset-Backed Securities transactions, issuer disclosure requirements are less cumbersome than those required for most other kinds of SEC-registered securities. In Securitisation, analytical scrutiny is shifted from the originating company's ability to pay to the structure of the transaction, the characteristics of the underlying assets, and the ability of the company (or its surrogate) to service the assets.¹⁴³

2.3 Market Overview

2.3.1 History of Securitisation

The roots of Mortgage-Backed Securities in the United States go back to the emergence of the secondary mortgage market and the foundation of the Federal National Mortgage Association (Fannie Mae) during the 1930's. Fannie

¹⁴³ Cf. Roever and Fabozzi (2003), p. 7.

Mae was founded to purchase residential mortgages insured by the Federal Housing Administration (FHA).¹⁴⁴

This was the beginning of the secondary mortgage market and the foundation for the creation of Mortgage-Related and Asset-Backed Securities. However, the first issuance of securities was not until the 1950's and it did not take off until the 1970's, when the MBS program of the newly founded Government National Mortgage Association (Ginnie Mae) rapidly became the preferred means of funding single-family mortgages.¹⁴⁵

The Securitisation of Commercial Mortgage Loans into Commercial Mortgage-Backed Securities (CMBS) only evolved in the mid-1980's during the Savings & Loans crisis. At the end of the 1980's the Resolution Trust Corporation (RTC) took over the thrifts' commercial real estate assets and started securitising the real estate loans into CMBS. The RTC held huge asset pools and was therefore able to give high guarantees to get the market started and the securities marketable. The Corporation had tapped a new funding source and overall had a very important effect on the future development of Commercial Real Estate Securitisation. Today the secondary market for mortgage loans in the USA is highly developed.¹⁴⁶

Securitisation or Asset Securitisation is not entirely new in Germany. As far as the German Pfandbrief is considered/recognized as a form of Asset-Securitisation, the historic roots go back to the 18th century, the time as the first Pfandbrief concept was invented.¹⁴⁷ In fact, the concept is precisely 235 years old. Frederick the Great laid the foundation for the issuance of Pfandbriefe with the Cabinet Order of August 29, 1769. The goal of this order was to help the landed gentry obtain cheaper agricultural mortgages by enabling the estates to issue Pfandbriefe on the basis of the mortgages granted. The mortgages serve as a cover for the Pfandbrief holders as are the issuing estates on a subsidiary basis. This basic concept of securitising mortgages has endured until today -

¹⁴⁴ Cf. Brueggeman and Fisher (2001), p. 495.

¹⁴⁵ Cf. Falcon (2003), p. 29; Kendall and Fishman (2000), p. 6.

¹⁴⁶ Cf. Baum (2000), p. 45.

¹⁴⁷ Cf. Schiereck and Rauch (2002), p. 174.

the Pfandbrief now has become an international capital market product with an outstanding volume of around €1.1 trillion.¹⁴⁸

2.3.2 Asset Differentiation

There is a difference between the asset that is backing the Securitisation and additional collateral that is required by investors. This is due to the fact that some assets refer to cash flows that will only be originated in the future, however, the investors want to have some kind of security in case those cash flows do not come in the future. So in the case of the Securitisation of future real estate rental cash flows, the property itself has to function as collateral, in addition to the future rental receivables. Another form of additional collateral could be a mortgage on the property.

This fact leads to an overlapping between Commercial Mortgage-Backed Securities and Real Estate Asset-Backed Securities. Even though Real Estate Asset-Backed Securities securitise real estate cash flows and Commercial Mortgage-Backed Securities securitise real estate loan receivables (i.e. interest and principle on a real estate loan), both might be secured by a mortgage. In both cases the securitised assets are secured by a mortgage and in both cases the mortgage serves as additional collateral for the investors. Nevertheless in Europe the case can be made that they differ from each other.

The matrix below clarifies the relationships between the different asset classes. Here one can differentiate between who originates the transactions and assets, and between real estate and non-real estate assets. On the real estate side there are Mortgage-Backed Securities (MBS) and Real Estate Asset-Backed Securities (RE ABS), while on the non-real estate side the asset classes are comprised of Collateralized Debt Obligations (CDO) and Asset-Backed Securities in a narrower sense (ABS i.n.S.).

Whereas Mortgage-Backed Securities are mainly bank originated, Real Estate Securitisation is non-bank originated, i.e. the sellers of the real estate assets to be securitised are no banking institutes, but corporates or governments. However, as discussed above the two asset classes overlap, since there are

¹⁴⁸ Cf. Hagen (2003), p. 12; Schiereck and Rauch (2002), p. 1.

transactions that are backed by real estate cash flows, but that are originated by banks and structured as secured loans. These transactions fall into the category of Real Estate Securitisation as well as into CMBS.

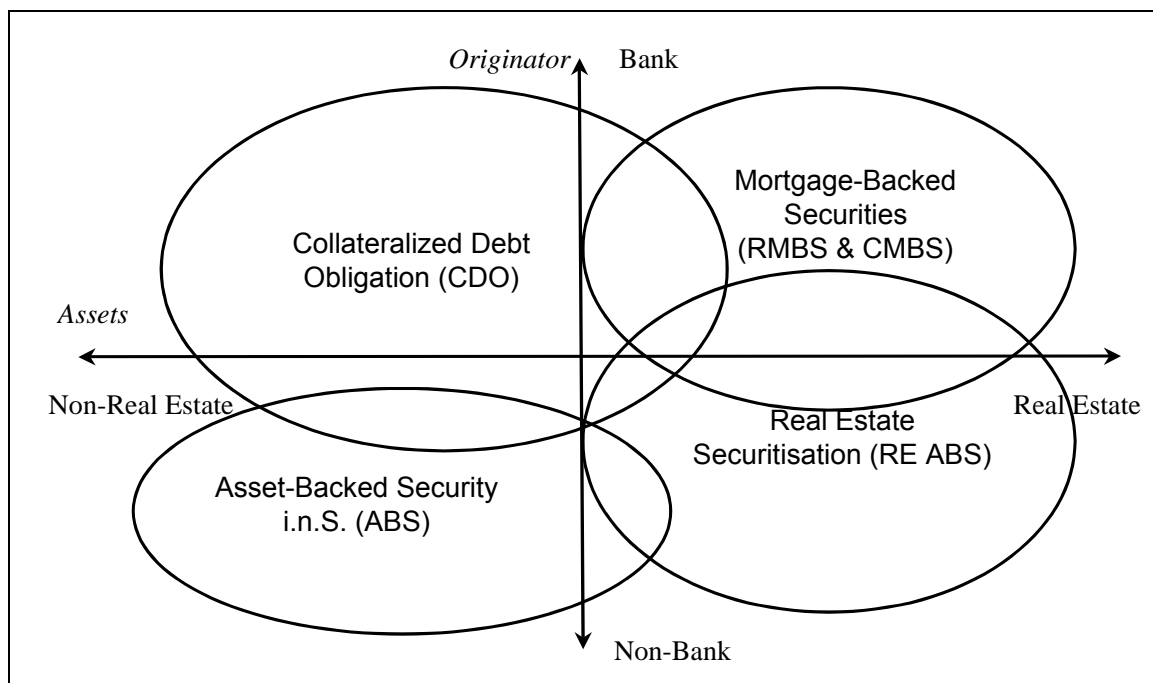


Figure 10: Asset Differentiation¹⁴⁹

Asset-Backed Securities i.n.S. overlap with Real Estate Asset-Backed Securities, because there are receivables that belong into both categories, such as lease receivables.

Collateralized Debt Obligations (CDO) overlap with all three other asset classes, since it is possible to securitise tranches (i.e. notes) from other Asset-Securitisations into a CDO.¹⁵⁰

2.3.3 Synthetic vs. True Sale Securitisation

When securitisation experts talk about assets or receivables in the context of a securitisation, they generally mean the right of one person to demand payment from another person under an existing contractual relationship, eg a mortgage loan or lease contract. The focus, therefore, is not on the contractual relationship between the originator and the customer, but on the monetary claim

¹⁴⁹ Following Rügemer and Siemes (2002), p. 773.

¹⁵⁰ Cf. Erturk and Gillis (2004), p. 2.

originated under an existing contract. The treatment of this claim differs in true sale and synthetic securitisations.¹⁵¹

Synthetic Structures¹⁵²

In a synthetic securitisation, the underlying asset is not transferred from the originator to the purchaser. Instead, the credit risk relating to the asset is isolated and transferred to the purchaser by way of a credit default swap (or similar arrangement), but the asset itself remains with the originator and on its balance sheet. The main reason for such an exercise is to achieve regulatory capital relief for the originator. However, the disadvantages of synthetic structures are apparent. The asset will not be removed from the balance sheet and these structures are only of interest to credit institutions that are concerned about regulatory capital relief.

True Sale Structures¹⁵³

In contrast, in a true sale the asset must be isolated from other assets and the originator's estate. A true sale is a necessary requirement for removing the assets from the originator's balance sheet and, in the case of banks, achieving regulatory capital relief.

¹⁵¹ Cf. Kreppel (2003), p. 273.

¹⁵² Cf. Anonymous (2002j), p. 58; Böhringer (2001), p. 53.

¹⁵³ Cf. Flämig (2003b), p. 17; Frühauf (2003), p. 17; Klüwer (2001), p. 35.

3 Principles of Real Estate Securitisation

This Chapter is defining and describing Real Estate Securitisation. It intends to clear up definition issues and to distinguish Real Estate Securitisation from Mortgage-Backed Securitisation. Moreover it shall delineate what the costs and benefits of Real Estate Securitisation are.

The analysis will lead to a theoretical Research Framework for Real Estate Securitisation. With this, the following chapter sets the scene for the subsequent chapters on the international comparison and the part on Germany.

This thesis looks at how Asset-Securitisation and especially Real Estate Securitisation markets evolve and what are the patterns that this development can be attributed to. It will delineate for whom this will be interesting, for which real estate assets it will be applicable, and what the motives are to do such a transaction. For this it is important to understand the theoretical concept of Real Estate Securitisation. However, the pure form described in the following part does not exist in the industry perse. In this respect it shall be stated that Real Estate Securitisation and Commercial Mortgage-Backed Securitisation overlap strongly and are sometimes confused with one another.

3.1 Defining Principles

3.1.1 Mortgage-Backed Securitisation

Semantically, Mortgage-Backed Securitisation (Residential and Commercial Mortgage-Backed Securities) should be called Mortgage-Backed Loan Securitisation as the underlying asset that gets securitised is not a mortgage or the property, but a loan that is backed by a mortgage. In this sense, the term is misleading. This is also important, when differentiating Mortgage-Backed Securitisation from Real Estate Securitisation.

In general, there are definition issues as in most cases Real Estate Securitisations are categorized under CMBS as in the case of Singapore. There US rating analysts have categorized Singapore Real Estate Securitisations as

CMBS, even though there were not even loans or mortgages underlying the issuances.¹⁵⁴

Going back to the primal structures of Mortgage-Backed Securities, there are essentially two types of Mortgage-Backed Securities. One is a pass-through certificate evidencing ownership of an interest in a mortgage loan or a pool of mortgage loans and the other type is an obligation secured by a mortgage loan or pool of mortgage loans, called pay-through security.¹⁵⁵

With pass-through structures principal and interest payments on the underlying mortgages (less service fees) are paid or 'passed through' to investors. Thereby investors are exposed to prepayment risk.¹⁵⁶ The pay-through category on the other hand includes pay-through or cash flow bonds that are designed so that the required amortization from the collateral pool will at all times be at least equal to the payments of both coupon interest and scheduled principal on the bonds. The creation of those straight bonds was similar to the creation of corporate bonds and it limited the exposure to prepayment risk. They featured scheduled interest payments on a monthly, quarterly, or annual basis, and they repaid principal at the end of the bond term. The issuer was required to maintain a specified amount of mortgages in the mortgage pool. If a mortgage was paid or foreclosed on, the issuer usually had to substitute similar mortgages into the pool.¹⁵⁷

A certain subset of pay-through bonds is Collateralized Mortgage Obligations (CMO). CMOs were developed in an attempt to deal with both the potentially adverse tax consequences of issuing multiple issue Mortgage Securities, and with the unpredictability of prepayments in residential mortgages. Whereas pay-through securities only have one series of securities, a CMO offering is divided into two or more issues, or 'tranches' each with a different maturity. Investors in

¹⁵⁴ Cf. Murra (2003).

¹⁵⁵ Cf. Levitin (1987), p. 27.

¹⁵⁶ Government-insured or guaranteed single-family mortgages can be prepaid, or paid back prior to maturity, without penalty; conventional residential mortgages can usually be prepaid with relatively little penalty. As a result, investors in RMBS can unexpectedly receive substantial income from prepayments. This income needs to be reinvested, possibly at lower yields. Cf. Levitin (1987), p. 28.

¹⁵⁷ Cf. Levitin (1987), p. 27.

the shorter maturity tranches usually receive lower yields than investors in longer-term tranches. CMOs often include a so-called *accretion* or 'Z' tranche on which interest is not paid until the other tranches have been paid in full. This is usually structured in the form of a Zero-Coupon Bond.¹⁵⁸

The attraction of a CMO security to investors is that:¹⁵⁹

1. It offers some call protection to investors in the later maturing issues,
2. It combines the predictable cash flows of bonds with the relatively high yields of mortgage securities.
3. It creates issues of different maturities from the same mortgage pool. Thereby issuers can market the securities to investors who have little desire to hold thirty-year mortgages in their portfolios, as they needed to do in the case of Mortgage-Pass Through Certificates.

The CMO structure was the forerunner of today's CMBS structures. The development of CMOs and their positive benefits spurred the development of today's widely used sub-participation structures.

3.1.2 Real Estate or Property Securitisation

There exist different definitions about Property or Real Estate Securitisation in the literature. Even though there are not many sources. Most sources have originated out of Singapore and the Singapore structure,¹⁶⁰ and out of Europe and the Operating Company transactions.¹⁶¹ There exist some sources in Germany.¹⁶²

Definition from Singapore:

"[Real Estate] Securitisation refers to a contractual arrangement whereby real estate owners sell their real estate asset(s) to a special purpose vehicle (SPV) that issues debt instruments to finance the purchase. The debt instruments are

¹⁵⁸ Cf. Levitin (1987), p. 28.

¹⁵⁹ Cf. Fiedler and Devoe (1995), p. 10.

¹⁶⁰ Cf. Heng (2002), p. 36; Ooi, *et al.* (2002), p. 1; Quek (1996), p. 20; Sing, *et al.* (2003), p. 75.

¹⁶¹ Cf. Pickersgill (2001), p. 125.

¹⁶² Cf. Lehmann and Danielewsky (2003), p. 53; Rügemer and Siemes (2002), p. 771.

backed by cash flows generated from the real estate asset(s). The legal transfer or separation of the asset to a SPV is the key feature that distinguishes a [Real Estate] Securitisation arrangement from the traditional mortgage-backed or collateralised bond issues.”¹⁶³

Definition Europe:

“Real Estate Securitisation is the Securitisation of predictable and dependable real estate income streams or receivables.”¹⁶⁴

Definitions Germany:

“Real Property is a direct type of real estate financing... it is not based on the Securitisation of mortgage loans, but it is used as direct financing for real estate investments.”¹⁶⁵

“Real Estate Securitisation securitises direct cash flows from real estate, i.e. receivables from real estate lease contracts, future lease contracts, real estate values and future real estate sale proceeds.”¹⁶⁶

“Real Estate Securitisation is the transformation of illiquid real estate assets into tradable securities. Securitisable assets are all kinds of real estate receivables and physical real estate that incorporate a constant and predictable cash flow.”¹⁶⁷

Summarizing the previous definitions, the following statements can be derived:

- Real Estate Securitisation is the transformation of illiquid real estate assets into securities – hence, this is why it is called **Real Estate (real estate assets) Securitisation** (tradable securities).
- Real Estate Securitisation (sometimes also called Property or Real Property Securitisation) can be used as a **divestment vehicle** or as a **direct financing instrument**.

¹⁶³ Ooi, *et al.* (2000).

¹⁶⁴ Pickersgill (2001), p. 125.

¹⁶⁵ Lehmann and Danielewsky (2003), p. 53.

¹⁶⁶ Rügemer and Siemes (2002), p. 771.

¹⁶⁷ Schulte (2005), p. 618.

- Transactions are based on and backed by solid and predictable **cash flows** derived from **real estate assets** or **real estate operations**.
- Real estate assets can be physical assets as well as non-physical assets, including receivables from **real estate lease** contracts, **future lease** contracts, **real estate values** and **future real estate sale proceeds** (inter alia).

In its definition, Real Estate Securitisation is close to Future Flow Asset-Securitisations like Whole Company Securitisations. This is why some industry people use this Analogy to compare Real Estate Securitisations to Asset-Backed Securities i.n.S..¹⁶⁸ However, Real Estate Securitisation are really overlapping with both: CMBS and ABS i.n.S. – it could fall in either category depending on what the asset and the collateral are.

If used as a divestment vehicle, Real Estate Securitisation essentially allows property assets to be taken off the balance sheet and thus improving the liquidity of companies as well as enhancing their return on capital. Typically, capital markets for real estate can be classified into two categories: equity and debt capital markets.

The motivation for tapping into real estate capital markets can be one of the following:

1. Source of finance.
2. Mortgage originators wish to sell mortgages, replenish funds to originate new mortgages.
3. Geographic flow of funds from regions with surplus funds to regions with high demand for housing.
4. Deregulation in financial institutions,
5. Corporate restructuring.

Typically, there are two types of Real Estate Capital Markets: Equity and Debt. Real Estate Securitisation is often confused with equity capital markets, but it belongs to the category of debt.

Equity Capital Market

1. Listed Property Companies
2. Open-ended Funds (only to a certain degree)
3. Property Trusts
4. Real Estate Investment Trusts (REIT)

Debt Capital Market

1. Mortgage Backed Bonds
2. Mortgage Backed Securities
3. Real Estate Securitisation (Real Estate ABS)

In Mortgage Backed Bonds (MBB), an agency creates mortgage pools and issues bonds based on these pools of mortgages. The mortgages are pledged as collaterals, and the agency retains ownership of the mortgages. MBBs are similar to covered bonds.

Mortgage Backed Securities are also pools of mortgages bought by investors and each mortgage in the pool is serviced by originator. However all payments (interest and principal) are passed-through to investors. MPTs are also known as Mortgage Backed Securities (MBS).

In Real Estate Securitisations, special purchase vehicles (SPV) are used to purchase property assets using funds raised by debt instruments. The debt in the Real Estate Securitisation is backed by cash flows generated from the real property.¹⁶⁹

Real Estate Securitisation as a Concept for Disintermediation of Lending Institutions

In recent times financing for real estate companies has become more and more difficult because banks have become very cautious with loan origination. This is due to the fact that a lot of banks have made an enormous amount of bad loans during the last decade and now those big bad loan portfolios weigh hard on the

¹⁶⁸ Cf. Yang (2003), Interview 16, p. 554.

¹⁶⁹ Cf. Sing, *et al.* (2003), p. 22.

banks' balance sheets.¹⁷⁰ However, Capital markets dictate that banks are more bottom line oriented. Therefore a lot of big commercial banks have decided to go away from the classic lending business and go into fee income business. This goes in hand with a second big trend, a trend that has been going on in the financial industry for many years. It can be described as the disintermediation of financial intermediaries; lending banks as such intermediaries will be more and more cut out of the lending process as they only function as an intermediary between the borrower and the capital market. Therefore the current trend in the banking industry can be described as a shift from credit to capital markets.

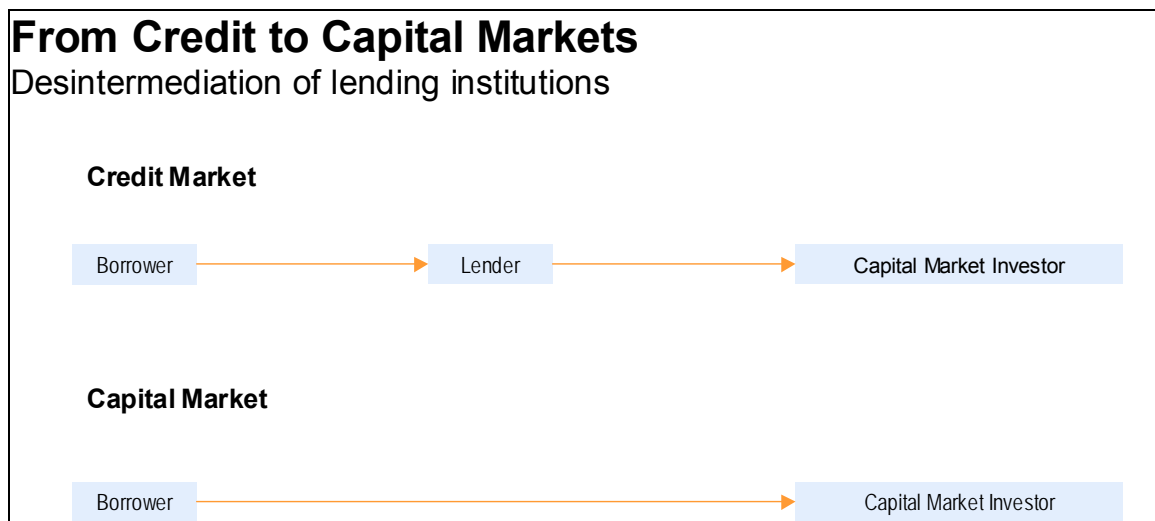


Figure 11: Disintermediation of Lending Institutions

Real Estate Securitisation is a classic case of a disintermediation in the real estate lending industry. The reason why this is happening is twofold:

1. Firstly, many banks have made bad real estate loans in the times of the economic upturn that have had a detrimental effect on the banks' ROE as discussed above.
2. Secondly, investors are always willing to get a higher return for the same amount of risk. So if the banks are disintermediated the usual lending spread can be distributed to the investor, the arranger and the borrower.

¹⁷⁰ Cf. Schmid and Maier (2005), p. 19.

Hence, this is a win-win situation for all the parties involved: the banks as arrangers make more fee income, investors get more return for the same amount of risk, and the borrowers get better financing conditions than before.

Banks will not allow disintermediation

In a lot of cases, in the past the loans have been very competitively priced – way under the risk-weighted price. Under Basel II, especially for ‘Income Producing Real Estate’ and ‘High Volatility Commercial Real Estate’ this will become a big problem, as risk weightings can be well above 100% in most cases.

Even though mortgage lending under Basel II will become more difficult, because the margins on the loans have to be adjusted to mirror the higher risk and the higher equity exposure, and even though there will be increasing disintermediation of banks and the borrower will go directly to the capital markets. Banks will not be bypassed totally, as they will not allow that to happen. Most probably the previous lenders will become the arrangers in future Real Estate Securitisation transaction. Hence, the participating banks will in the future increasingly make fee income.¹⁷¹

3.1.3 Asset vs. Collateral

In order to distinguish between Real Estate Securitisation and Mortgage-Backed Securitisation, it is important to distinguish between the asset and the collateral in a Asset-Securitisation transactions. Usually the assets that get securitised and that are underlying the transactions serve as the only security to the investor. In the case of real estate, this security becomes a new dimension.

In Commercial Mortgage-Backed Securitisation transactions, the asset is the commercial real estate loan that is backed by a mortgage. In this case the asset is the real estate loan supported by the interest and principal payments on the loan and backed by an additional collateral – a mortgage. The mortgage and the fact that it serves as additional collateral to the investors distinguish CMBS

¹⁷¹ Cf. Cave (2003), Interview 18, p. 554.

from CDOs and is the reason why CMBS are called CMBS and not Collateralized Real Estate Loan Securitisations.¹⁷²

For the case of Real Estate Securitisation, the assets are real estate cash flows, but per se there is no additional collateral underlying the transaction. However, without collateral investors are not going to buy the securities.¹⁷³ In the case of future real estate cash flow Securitisations the assets are not secured whatsoever. If the tenant defaults, then the investors will not get their money back.¹⁷⁴ Therefore, the transaction has to be enhanced with additional collateral in the form of a mortgage or the transfer of the property itself.

In the case of a future lease Securitisation (e.g. Credit Tenant Lease Securitisation) the circumstances can be described as follows:

“We take the lease, but we still take a mortgage on the property, because we need to perfect an interest in that lease cash flow in the US in most states you have to secure this by a lien on the property. And I do not know what the property law is like in Germany, but we need to perfect the claim to the cash flow. So you take a mortgage on the property as well and you take an absolute assignment of the leases – the rents.”¹⁷⁵

So, there is the necessity for additional collateral and first lien mortgages seem to be the best and cost efficient way to satisfy that need:

“Ultimately, the defaults and loss severity is contingent on the mortgage and the property and being able to reach that property in a credit event. And that is what it is all about. If it becomes a market of unsecured claims or the transactions are done in a synthetic manner – where the banks keep the first lien, then in case of credit events the whole situation can become very slippery. Things may not work the way they are supposed to be – the bankruptcy judge may throw his hands up and give everybody (secured creditors and unsecured creditors) the same. In US experience, recovery by secured creditors has been pretty good even in bankruptcy courts. But that’s not true for the experience of unsecured

¹⁷² Cf. Wolberg (2003), Interview 8, p. 554.

¹⁷³ Cf. Boemio (2003), Interview 17, p. 554.

¹⁷⁴ Cf. Ashenmil (2003), Interview 14, p. 554.

*creditors in bankruptcy courts. So in the history of courts and laws and structures – first lien is decisive in those kinds of credit situations.*¹⁷⁶

Eventually, it does not matter if the transaction is secured by a mortgage or the building itself; in one way or another the collateral is the real estate (i.e. the building):

*“You are paying somebody money and you are taking collateral and holding it as a security. A mortgage means you can have the title to the property if the borrower does not pay. If he pays you do not get the title, but you get your money.”*¹⁷⁷

3.2 Classification and Differentiation

In order to really understand the concept of Real Estate Securitisation, the theoretical difference between Real Estate Securitisation (Real Estate ABS – RE ABS) and Mortgage-Backed Securities (MBS) has to be clarified. For this purpose the following paragraphs deduce the differences between the two.

Figure 9 shows a categorisation of Securitisation transactions into type of originator and type of asset. In general, there are three major groups of originators: banks, corporates and the government. On the asset side, a distinction between ‘Receivables and Loans’ and ‘Real Estate Assets’ is made.

It is observable that the full range of ABS asset classes as defined in the chapter above can be found in the graph: ABS i.n.S., CDO, MBS. But also a new category has been included into this graph: RE ABS. Whereas CDOs and ABS i.n.S. represent receivable or loan Securitisations, MBS and RE ABS stand for real estate related Asset-Securitisations. In this case the difference between RE ABS and MBS is mainly who originates the asset and what is the asset. MBS are backed by real estate loans that are mainly originated by banks, whereas Real Estate Securitisation in its generic sense represent securities that

¹⁷⁵ Jacobs (2003), Interview 19, p. 554.

¹⁷⁶ Corcoran (2003), Interview 12, p. 554.

¹⁷⁷ Wolberg (2003), Interview 8, p. 554.

are originated by corporates or the government and that are backed by real estate cash flows or real property.

Categorisation of ABS-Transactions			
	Banks	Corporates	Government
Receivables (loans)	Collateralized Debt Obligations – Securitisation of corporate loans and bonds in order to relieve regulatory capital	Asset-Backed Securities in a narrower sense – Securitisation of Receivables or customer loans in order to create solvency	Asset-Backed Securities in a narrower sense – Securitisation of future cash flows in order to achieve off-balance sheet financing (without raising the national deficit)
Real Estate Assets	Mortgage-Backed Securities – Securitisation of Real Estate secured loans in order to relieve economic capital	Real Estate ABS – Securitisation of Real Estate receivables that are backed by the real property	Real Estate ABS -- Securitisation of future Real Estate sales revenues in order to lower the national deficit

Figure 12: Categorization of Asset-Securitisation Transactions

This second figure (Figure 13) shows an alternative presentation of the different categories. It also makes the distinction between 'Receivables and Loans' and 'Real Estate Assets', but it looks at the nature of the originated cash flow. In Securitisations there can be original (i.e. primary) cash flows, or there can be derivative (i.e. secondary) cash flows.

The difference between the two is for example: receivables of a company depict original or primary company cash flows, whereas cash flows from interest and principal of a company loan are rather derivative company cash flows. Moreover, Securitisations of derivative cash flows are done by banks whereas Securitisations of original cash flows are done by non-banks. Also the motive for the Securitisation is different. Derivative cash flow Securitisations usually follow the motive of regulatory capital relieve, whereas the Securitisation of original cash flows rather represents the motive of solvency generation.

So in the 'Receivables and Loans' category, receivable Securitisations are backed by original company cash flows and loan Securitisations are backed by

derivative company cash flows. In the 'Real Estate Assets' category this fact represents the major difference between Real Estate Securitisation and MBS. MBS depict derivative real estate cash flows whereas Real Estate Securitisations are backed by original/primary cash flow from real estate assets. This distinction is very important because for an investor it might have different implications, if he invests into original or derivative cash flows. Also for the structuring of the transaction there are differences concerning the security for the investor.

Original vs. Derivative Cash Flows		
	Original Cash Flows	Derivative Cash Flows
Receivables (loans)	Asset-Backed Securities in a narrower sense – Securitisation of original receivable cash flows, e.g. Customer loans, trade receivables (in order to generate solvency)	Collateralized Debt Obligations – Securitisation of derivative corporate cash flows by securitising corporate loans and bonds (in order to relieve regulatory capital)
Real Estate Assets	Real Estate ABS – Securitisation of original real estate cash flows, e.g. rent receivables, future property reversion values (in order to create solvency)	Mortgage-Backed Securities – Securitisation of derivative real estate cash flows, i.e. interest and principal payments from real estate loans (in order to relieve regulatory capital)

Figure 13: Original vs. Derivative Cash Flows

In essence, MBS derive from bank originated real estate assets that are backed by derivative real estate cash flows, whereas Real Estate ABS derive from Corporate or Government originated real estate assets that are backed by original real estate cash flows. Therefore one can demark Real Estate Securitisation as real estate backed transactions that are not originated by a bank and that refer to original or primary real estate cash flows.

3.3 Benefits vs. Limits

Using Asset-Securitisation for financing real estate is very interesting for the property industry, because capital market investors often value cash flows differently than mortgage banks. Moreover they are more willing and also more able to take on specific risks that mortgage banks cannot take on. Hence with Real Estate Securitisation, the LTV-ratios on the capital market could be higher than in traditional mortgage bank financing. Also, due to the transaction structure, the overall interest rate on that transaction could be lower than it would be on a traditional mortgage loan. Apart from that Real Estate Securitisation has grown to increasing popularity with ABS-investors in recent times because it is also often used as a divestment vehicle in connection with principal finance and whole company Securitisation.

Of course, there are not only benefits associated with the use of real estate Securitisation as an alternative financing source, but there are also limits that restrict the use of this financing tool. Both will be delineated in the following paragraphs.

Benefits¹⁷⁸

There can be benefits for both the originating company and those who will ultimately invest into Real Estate ABS, i.e. the institutional investors.

Benefits for the originator:

- Securitisation can lead to higher leverage, i.e. higher loan to value ratios (LTV) than would normally be achievable using more traditional financing methods. Typically, standard bank lending will assume LTV ratios of between 60-70%. A well-structured Securitisation can realise LTV ratios of 90-95%. A company can therefore unlock more capital than might be the case through normal bank lending arrangements.
- Real estate Securitisation may lower the cost of debt for the borrower compared to traditional sources of financing. The lower percentage of equity invested raises the return on invested capital.

¹⁷⁸ Cf. Rügemer and Siemes (2002), p. 773; Schulte (2005), p. 620.

- Real estate Securitisation is an Alternative to traditional sale and leaseback deals as a means of raising capital from an existing corporate real estate portfolio. The main benefit with this is that the originating company can retain ultimate ownership of the income producing assets and simply create or assign an appropriate interest for the purposes of Securitisation. For example, a property company might create a long leasehold interest in its freehold portfolio so as to divert the income stream to the newly created leasehold interest.
- It allows non-investment grade companies to access the capital markets.
- The structure is individually tailored to suit the originating company and can therefore be adjusted to meet the nature of each portfolio.
- Investors are comfortable with the concept and the security, which the structure will create.
- For the originator it should be possible to achieve a coupon which is below the rate, which would be, payable on a standard bank facility where a fixed number of percentage points above EURIBOR is usual.
- The focus is shifted onto the income generation of the asset, i.e. cash flow rather than the volume of the asset or the company itself. This allows segregation of good assets from what otherwise may be a poorly performing company or sector of the economy whose lack of profit might otherwise make fund raising difficult. Therefore issuers with a below-investment-grade unsecured debt rating are able to sell investment-grade, even triple-A-rated debt. The debt costs far less than a non-investment-grade firm would be able to access in the capital markets on an unsecured basis.
- Real Estate Securitisation diversifies the sources of capital, reduces the size of the balance sheet and frees up capital associated with the securitised real estate assets. The released capital can be put back to work and the originator may replace the securitised real estate assets with new ones. A higher volume of origination would, therefore, provide the issuer with the potential to generate higher revenues and earnings. In effect, this allows the issuing corporation to leverage off its capital base.

- In general, for investment-grade companies the non-recourse sale of assets enables the issuers to reduce the exposure to higher risk-weighted assets, and to fund portfolio growth through off-balance sheet treatment.
- Change of perception on the market and a possible gain of prestige due to the fact that the company is going new ways and is financing its real estate over the capital markets. Thereby a part of independence from the traditional lending institutions will be gained.
- Possibility to gain the upside potential of the property without really owning the real estate anymore.

Benefits for the investor:

- For the investor Real Estate Securitisation creates a relative value gain, because the coupon on the notes is usually well above that payable on comparable bonds, hence making it an attractive investment.
- The issued Real Estate ABS notes are rated at their issuance and underlie a constant monitoring by the rating agencies.
- Real estate assets represent a very stable asset base and have a good reputation on the market.
- New assets and new structures that might be tailored to the needs of the investors create a better diversification of the investors' portfolios. For example, in Germany Real Estate ABS would represent a perfect substitute product to the existing real estate investment vehicles that have all proven to be ineffective for international institutional investors.
- Investing in original real estate risk without having to administer and manage the property.

Limits¹⁷⁹

The limits of the Securitisation transactions can be found on the cost side and on the legal and structuring side. Depending on the country of origination there

¹⁷⁹ Cf. Robinson (2003), Interview 9, p. 554.

are tax as well as legal challenges. For example in Germany, for a real estate Securitisation where real estate receivables are sold to an SPV and the real estate is transferred to the SPV because it serves as additional collateral, a transfer tax of 3.5% applies. This does not only apply once, but twice, once the real estate is transferred back to the originator after the notes have matured and the transaction is finished. Taking this extra cost of 7% into account, does not make the real estate Securitisation look very favourable. So therefore the local tax rules are very important in the structuring of a real estate ABS transaction. Apart from that the biggest legal problem is the achievement of the bankruptcy remoteness of the SPV. It is for that reason that most of the time the real estate has to be transferred as additional collateral. In most countries there are different bankruptcy laws and especially in Europe it is a real challenge to structure a transaction of such sort.

Moreover the new accounting rules concerning Securitisation within IAS and especially US GAAP (after Enron) are making it very difficult for companies to reach off-balance sheet treatment. This makes especially those transactions very difficult, where the originator wants to achieve an off-balance sheet treatment, but does not want to sacrifice the upside of the portfolio.

Finally, issuers need to weigh the cost of the transaction, which can be very high, versus the benefits of a real estate Securitisation. The costs are not only up-front legal and structuring fees, but also issuing and administrative costs. Therefore it is essential that a minimum volume as defined earlier is reached.

3.4 Research Framework for Real Estate Securitisation

3.4.1 Overview

The Research Framework for Real Estate Securitisation that is defined in the underlying dissertation thesis is based on the hypothesis that there are different environments and determinants that influence Securitisation markets. This framework can be adapted to Real Estate Securitisation markets, so that there are six different environments influencing the market and its transactions. Furthermore, there are three different determinants that influence Real Estate Securitisation transactions.

The **environments** shaping the market and its transaction structures are:

- **Regulatory/Legal** Environment
- **Tax** Environment
- **Accounting** Environment
- **Investor** Environment
- **Rating Agency** Environment
- **Real Estate/Local/Cultural** Environment

Those environments act on the three **determinants** of a Securitisation transaction, which are

- The **Assets** that are used for the Securitisation transaction,
- The **Borrowers** initiating the transaction,
- And the **Motives** for choosing that financing alternative.

The relationships between the market, the environments and the determinants are very well documented by the illustration in Figure 14.

The different environments influence each other and act on the determinants. The environments are externally given to the borrower who needs to choose, if he wants to use Real Estate Securitisation as a financing alternative to a traditional financing. His decision is influenced by the motives that he is following with his financing strategy. If for example, his main objective is to achieve off-balance sheet financing, then the accounting environment is influencing if he is going to do a Securitisation transaction or not. Then there are different real estate assets (e.g. cash flows, development proceeds, real estate values) that the borrower can choose from. This decision may be dependent on the investor and rating agency environment; if the rating agencies do not approve the assets and the transaction structures, then the transaction will not go through, and if investors do not like the assets then, they will not buy the bonds, and the transaction won't go through neither.

On another page the Accounting Environment is influencing the other environments as well. It has an effect on the regulatory/legal environment (i.e. legal structuring, the rules governing the market), the tax environment (because

tax and accounting are closely linked) and on the rating agency environment (because it alters the view that rating agencies take). This example shows that in essence all environments are somehow dependent on each other and are influencing each other.

Each environment is changed and shaped by certain drivers. One driver for example for the regulatory environment in the US was the Savings & Loans crisis in the 1980's and the foundation of the Resolution Trust Corporation (RTC). Drivers for environments in different geographic regions differ, but common denominators can be derived.

Eventually what will follow out of the combination of different environments with the determinants of Real Estate Securitisation in a specific region/country will create an appropriate transaction structure. Each transaction structure is different and the ultimate structure depends on whichever angle one looks at the Securitisation. Multiple similar structures can be grouped into overall transaction schemes.

3.4.2 Market

The Demarcation of the relevant market is important. A market can be classified by geography, asset class and determinants (originators or transaction schemes). The focus of this thesis is the Asset Securitisation market in general and Real Estate Securitisation market in specific. From an asset-class perspective, the Real Estate Securitisation market overlaps closely with the Commercial Mortgage-Backed Securitisation market. From a geographic perspective this dissertation will look at four different markets: Singapore, the USA, Europe and Germany.

Markets evolve in certain patterns and are fuelled by certain evolution drivers that lead to the inception but also to the ongoing development of the market. Resulting out of this relationship are minimal requirements that need to be fulfilled for the markets to evolve.

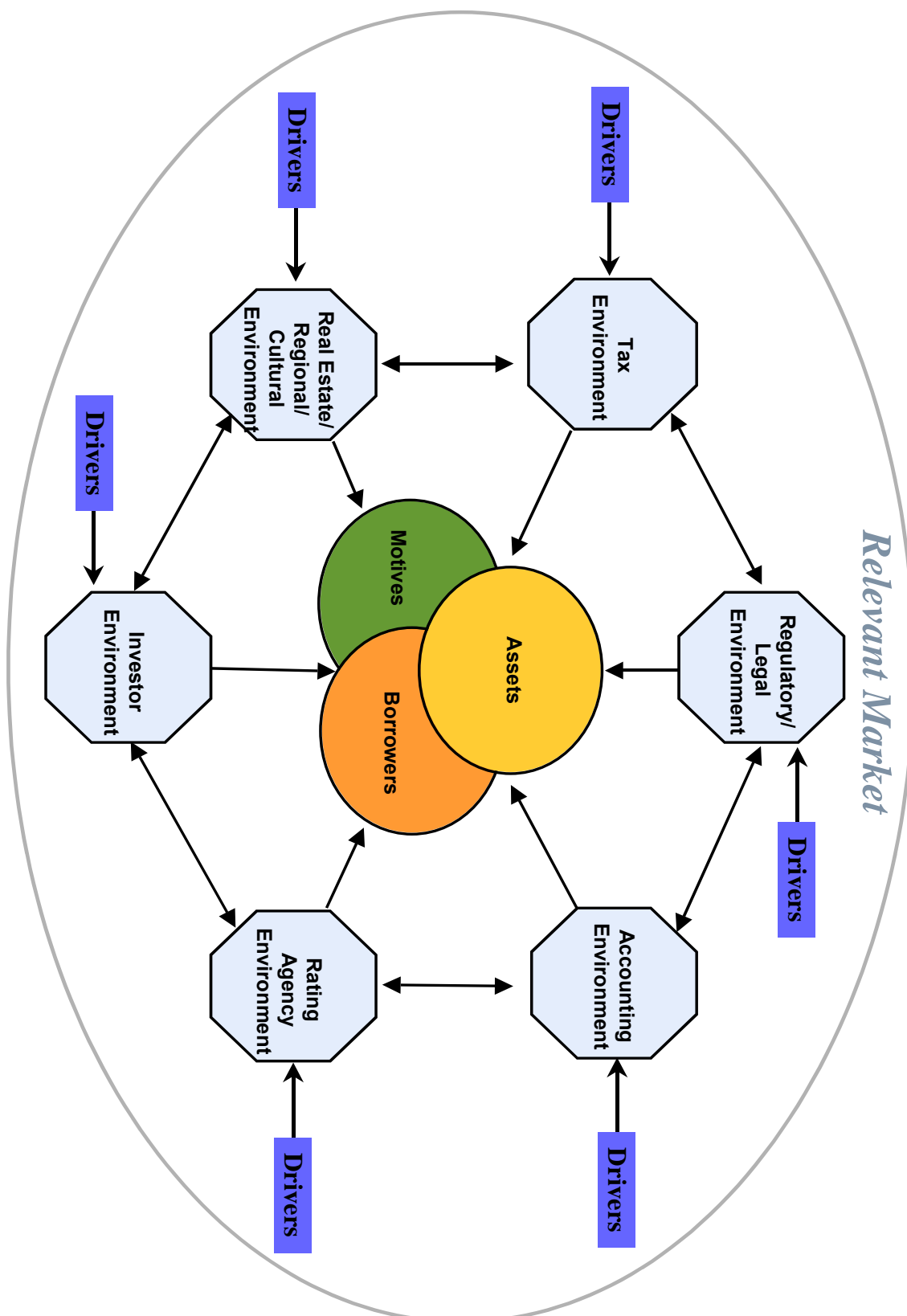


Figure 14: Theoretical Framework for Real Estate Securitisation Markets
Source: Authors Compilation

In this respect, the influence of different environments on the market and on the determinants of the market are important. Rating Agencies like Standards & Poor's and Moody's have long accepted the importance of those different environments and determinants that influence the evolution and inception of Securitisation markets, as can be displayed exemplarily by the following analysis for the Chinese Securitisation market:¹⁸⁰

"Standard & Poor's has defined that **Laws and Regulations** are needed for a Firm Foundation of the market. Before a significant Securitisation market can exist in China, the country needs a strong judicial system and clear-cut body of laws to form the foundation of a viable Securitisation framework. In recent years, new laws have been enacted, notably security and trust laws, but there still remains uncertainty about the implementation of existing laws, and in particular, creditors' enforcement rights and the efficiency of the judicial process. In this regard, a draft bankruptcy law was submitted for review in June 2004, suggesting a desire by the authorities for quicker reforms. If adopted, this law will supersede a patchwork of antiquated regulations and laws that lack clarity and details. The new law is intended to apply to all enterprises (with some specified exceptions). Presently, not only does China lack a clear-cut set of laws (including **tax laws**) specifically governing Securitisation, it is still unclear which **regulatory body** would oversee Securitisation transactions.

Structural, legal, and tax issues faced in China could be resolved by exploring solutions applied elsewhere, especially in those Asian jurisdictions that have enacted specialized Securitisation laws. The **willingness of legislators to move in the direction of reform** that favours creditor rights and to establish laws to facilitate Securitisation **is critical** to ensuring the orderly development of this new market."¹⁸¹

Even though it has long been universally accepted that there are environments and market drivers, there has been a lack of a comprehensive model or research framework to mirror this. This thesis is setting up a framework for this, as described below.

¹⁸⁰ Cf. Lam (2004), p. 6.

3.4.3 Environments

The environments do not only pose the framework specifically for Real Estate Securitisation but also for the overall Asset-Securitisation market in general.

Regulatory/Legal

Regulatory guidelines on Securitisation that are issued for banks are usually also proxies for non-bank Securitisations (see Singapore, Italy, etc.). The Regulatory and Legal Environment are prerequisites for the institution of a functioning Asset-Securitisation market. There needs to be certainty about what is allowed, what can be issued, who needs to be informed, who is allowed to do it. Legally it is important to be able to institute bankruptcy remote structures and to be able to truly sell and transfer the asset

Tax

Tax is a critical decision criterion, when an investor is allocating his funds. The tax on the asset level, on the SPV level as well as the interest tax is of enormous concern to the investor. Hence, investors usually seek for loopholes in tax legislation, which leads to very complex and 'hard to understand' structures and company/legal constructs. It is hence important for investors to have predictable tax guidelines. For policy makers, it is important to build up tax structures that help attract originators, arrangers and investors alike.

Accounting

The accounting environment is influencing the Asset-Securitisation market in the sense that the more favourable the asset sale is on the sellers/originators balance sheet the more transactions will happen, i.e. the bigger the market will grow. In reverse the bigger the accounting hurdles, the more unlikely it is for Real Estate Securitisation transactions to happen.

Rating Environment

The Rating Environment includes the influence of the rating agencies on structured finance markets as well as the level of ratings used in Securitisation issues. Rating Agencies through their influence on structures/transactions

¹⁸¹ Wong and Lam (2004), p. 1.

strongly shape the structures used and the evolution of markets. It is a hindrance to new innovative methods and structures. If rating agencies do not give their consent for transactions the bonds cannot be placed in the global financial markets.

Investor

Investors are crucial to the success of Securitisation transactions. If they do not understand the issuances and if they do not buy the bonds, then the market will never evolve. The investor demand is a driving force and is dependent on what alternative investment products exist in the market. Assets, as well as the structural features of the bonds (interest, principal and maturity) should match investor preferences and should help to fulfil the investor's investment objectives. Basically everything is securitisable as long as investors buy it:

*"Your list of assets is pretty long, and as long as investors buy it, you can securitize basically everything."*¹⁸²

Real Estate/Local/Cultural Environment

The Real Estate/Local/Cultural Environment is essentially the residual of all environments in the market. It catches the local and cultural peculiarities, as well as the situation on the real estate market. It is indisputable that the state of the real estate market has a great effect on the timing and the inception of Real Estate Securitisation.

There are big regional differences – Real Estate Securitisation in Asia is different than in the US or Europe. There are different implications for different countries and regions.

3.4.4 Core Determinants

In Real Estate Securitisation transactions different originators hold different assets and might have various motives of doing a Real Estate Securitisation. Therefore the different assets, borrowers and motives specific to Real Estate Securitisation transactions are described in the following.

Borrowers/Originators/Sellers

There are various originators of real estate related cash flows and real estate assets in the property industry. Depending on the type of incorporation, the core competencies and the business model of those potential borrowers, it can be delineated for whom a Securitisation transaction might be feasible or not.

- Corporates, that have defined real estate as a non-core business and that try to disinvest their real estate holdings in order to raise shareholder value.
- Corporates, that have defined real estate as a core business and that are looking to finance or refinance their existing holdings.
- Real estate holders that are looking at financing or refinancing their existing real estate. The following list belongs to that category:
 - Open-ended real estate funds
 - Closed-ended real estate funds
 - Listed property companies
 - Real estate specialty funds (for insurances etc.)
 - Opportunity Funds
- Real Estate Investors that are financing new acquisitions by issuing Asset-Backed Securities.
- Real Estate Sellers, that are trying to generate solvency for a sale that will only take place sometime in the future (advance sale)
- Governments that have solvency problems but that also have a lot of real estate holdings. In the European Union, member countries are only allowed to take on a certain amount of debt (Maastricht Criteria). Therefore the governments are looking for ways to access solvency without raising the national debt (compare Italian Treasury Real Estate Securitisation).
- Real estate project developer

¹⁸² Boemio (2003), Interview 17, p. 554.

- Suppliers of Multi-Seller Platforms; those enable a pool of small originators to pool their assets.

Assets

All the assets for a Real Estate Securitisation are cash flows that are derived from real estate, in one way or another. Those assets can be summarised in the following categories:

- Real estate rental receivables.
- Contractually defined future cash flows from real estate leases (secured either by the real estate itself, a mortgage or by a leasehold construct).
- Future cash flows derived from real estate in project finance and infrastructure projects (e.g. Cash Flows from Toll roads or income from other public infrastructure projects).
- Ticket sales from football stadiums and multi-purpose arenas.
- Real estate sale and leaseback payments.
- Future real estate sale proceeds.
- Corporate Real Estate Sale and Leasebacks.
- Cash flows from real estate backed Whole Company Securitisations (e.g. Pub deals), where the assets are the cash flows from the company, but the collateral is the real estate of the company, and one cannot do without the other.
- Future proceeds from real estate development projects.

Those findings can be put into a new subdivision of asset classes as shown in Figure 12.

Motives

Type of Motive / Motivation of the Borrower/Asset-Originator

In general, there must be some kind of motive or a goal that an originator follows by using a Securitisation as a financing instrument; otherwise it would not be utilized.

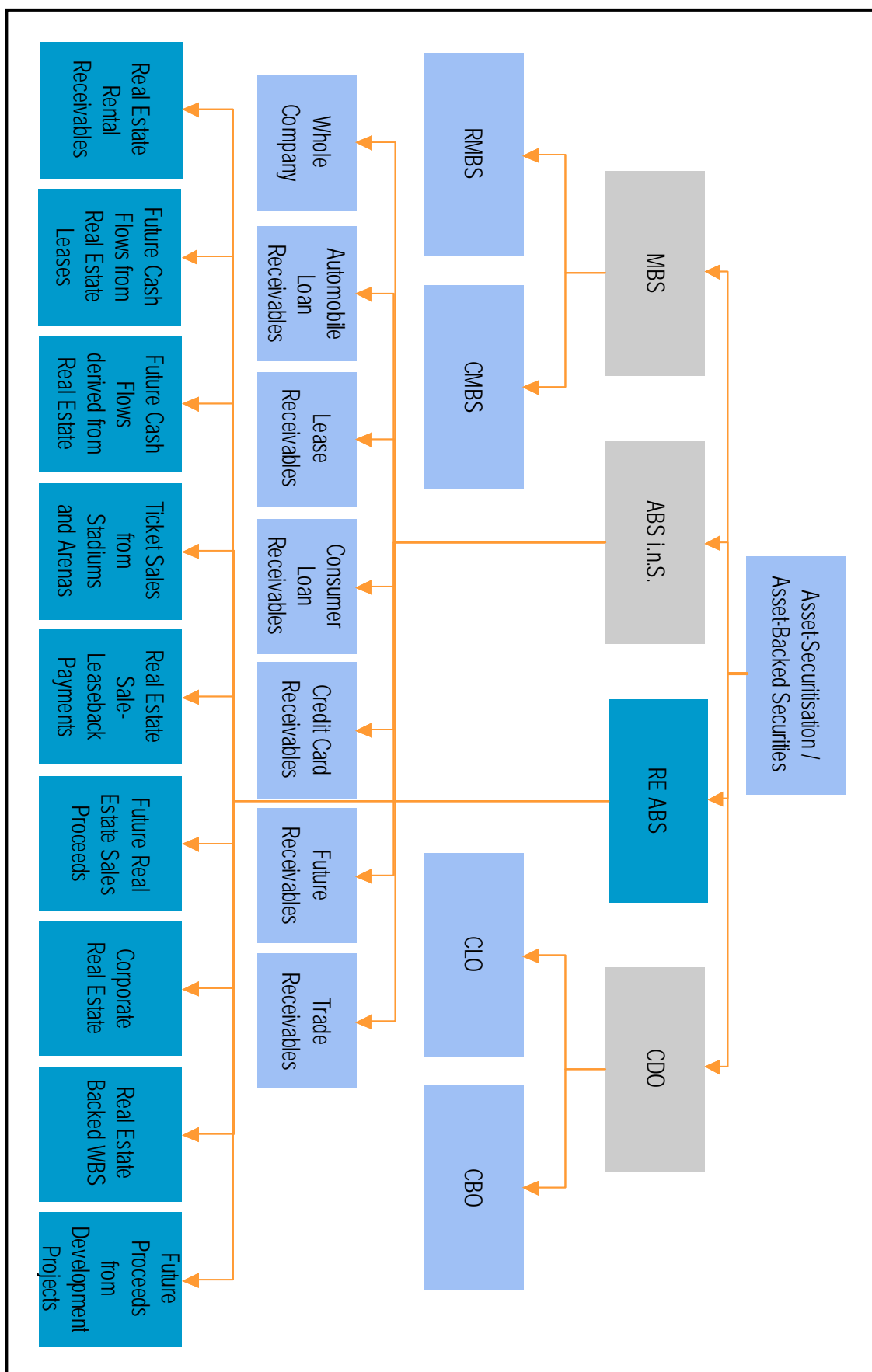


Figure 15: Subdivision of Assets-Classes including Real Estate Securitisation

Source: Authors Compilation

Usually originators want to have all the following goals and motives satisfied; however, that is not always possible. Contradictions of goals often occur:

- Off-Balance Sheet Financing
- Funding
 - by selling future real estate cash flows
 - by selling the real estate itself
- Development of new financing sources and opening up a new investor base
- Capital market financing without having a rating
- To get a cheaper financing if the asset rating is better than the corporate rating
- Realisation of balance sheet reserves
- Higher loan to value ratios (LTV)
- Opportunity to realise future real estate cash flows today (at a present value)
- Improvement of the Return on Equity (ROE) and increase of the shareholder value
- Increase of the company's solvency
- Use of Securitisation as a balance sheet management tool

Transaction Schemes/Structures

Transactions Schemes are abstracted transaction structures. They rather show the generalized pattern of potential transactions rather than the specific structure. The specific transaction structures result out of the specific combination of transaction schemes, borrowers/originators/sellers, assets and motives. This process is determined and influenced by the market, the environments and the drivers of the market.

3.5 Chapter Summary

This chapter has merged Real Estate Financing and Asset Securitisation into the concept of Real Estate Securitisation. It has introduced the concept and has distinguished it from Mortgage-Backed Securitisation.

As there does not exist a specific research framework for Asset-Securitisation and Real Estate Securitisation, yet. This chapter has established a research framework:

The framework is constituted by the relevant market and the following identified environments and core determinants:

The **environments** shaping the market and its transaction structures are:

- **Regulatory/Legal** Environment
- **Tax** Environment
- **Accounting** Environment
- **Investor** Environment
- **Rating Agency** Environment
- **Real Estate/Local/Cultural** Environment.

Those environments act on the three **determinants** of a Securitisation transaction, which are:

- The **Assets** that are used for the Securitisation transaction,
- The **Borrowers** initiating the transaction,
- And the **Motives** for choosing that financing alternative.

The framework will be validated by the international comparison, which will be the basis for the analysis of the German market.

4 International Comparison - Validation of Research Framework

The use of the international comparison is threefold:

1. It is validating the research framework for Securitisation markets, by showing that:
 - a. Securitisation markets are influenced by regulatory/legal, tax, accounting, rating agency, investor and real estate/local/cultural environments,
 - b. there are 3 core determinants in every Real Estate Securitisation that have an influence on the transaction schemes used in such transactions,
 - c. and drivers can be identified that make a Real Estate Securitisation market evolve.
2. It is underlining Real Estate Securitisation as an asset class.
3. It compares the Real Estate Securitisation Markets in Singapore, US and Europe in order to derive statements that will lead to the constitution of a model and that will help to better analyse why there is not a market for Real Estate Securitisation in Germany and what can be done to change this.

4.1 Introduction

4.1.1 International Asset-Securitisation

The importance of Securitisation in the global structured finance markets is enormous and can be best described by a quote of Joanne W. Rose, executive managing director of Standard & Poor's Structured Finance Ratings group in New York:¹⁸³

¹⁸³ Rose, *et al.* (2000), p. 1.

“Asset Securitisation is one of the most significant financial innovations in the global capital markets, substantially enhancing the management of assets and liabilities by individuals and corporations. It is a very robust market and it is broadening both in terms of asset classes and the use of Securitisation techniques in other forms of financing. Most exciting is the growth occurring outside the U.S. and the developments that are different from U.S. structures.”

This quote highlights that in 2000 the high significance of global Securitisation markets outside the US had already been identified. Today Securitisation as a structured finance product has spread over all of the 5 continents as illustrated below and visualized in Figure 16: The Spectrum of Global Securitisation:

America (North- and South-America)¹⁸⁴

United States,¹⁸⁵ Canada,¹⁸⁶ Argentina,¹⁸⁷ Bolivia,¹⁸⁸ Brazil,¹⁸⁹ Chile,¹⁹⁰ Colombia,¹⁹¹ Mexico,¹⁹² Nicaragua,¹⁹³ Panama,¹⁹⁴ Paraguay¹⁹⁵ and Venezuela.¹⁹⁶

Africa

South Africa¹⁹⁷

¹⁸⁴ Cf. Sheridan, *et al.* (2003), p. 40.

¹⁸⁵ Cf. Bonjour and Falk (2003), p. 56; Borod and Hutton (2003), p. 57; Dorris (2003), p. 79; Finkelstein (2003), p. 63; Gambro (2003), p. 51; O'Connor and Jr (2003), p. 64; Rosenberg and Weiss (2003), p. 111; Sakai (2003), p. 68; Schneider (2003), p. 97; Symonds Jr and O'Toole (2003), p. 107; Telpner (2003), p. 85; Thompson and Weaver (2003), p. 36; Wildman and Lewton (2003), p. 74.

¹⁸⁶ Cf. Fingerhut (2001), p. 17; Witherspoon (1999), p. 21.

¹⁸⁷ Cf. Dell'Oro Maini and Noblía (2003), p. 118.

¹⁸⁸ Cf. Rojas (2003), p. 123.

¹⁸⁹ Cf. Junqueira Sampaio Meirelles and Bentivegna (2003), p. 126.

¹⁹⁰ Cf. Eyzaguirre and Carraha (2003), p. 132.

¹⁹¹ Cf. Fradique-Méndez and Arciniegas (2003), p. 137.

¹⁹² Cf. Otto, *et al.* (2003), p. 143.

¹⁹³ Cf. Rodríguez and Arias (2003), p. 147.

¹⁹⁴ Cf. Watson III (2003), p. 151.

¹⁹⁵ Cf. Breuer (2003), p. 155.

¹⁹⁶ Cf. Luján (2003), p. 158.

¹⁹⁷ Cf. Anonymous (2002k), p. 96; Aris, *et al.* (2002), p. 26.

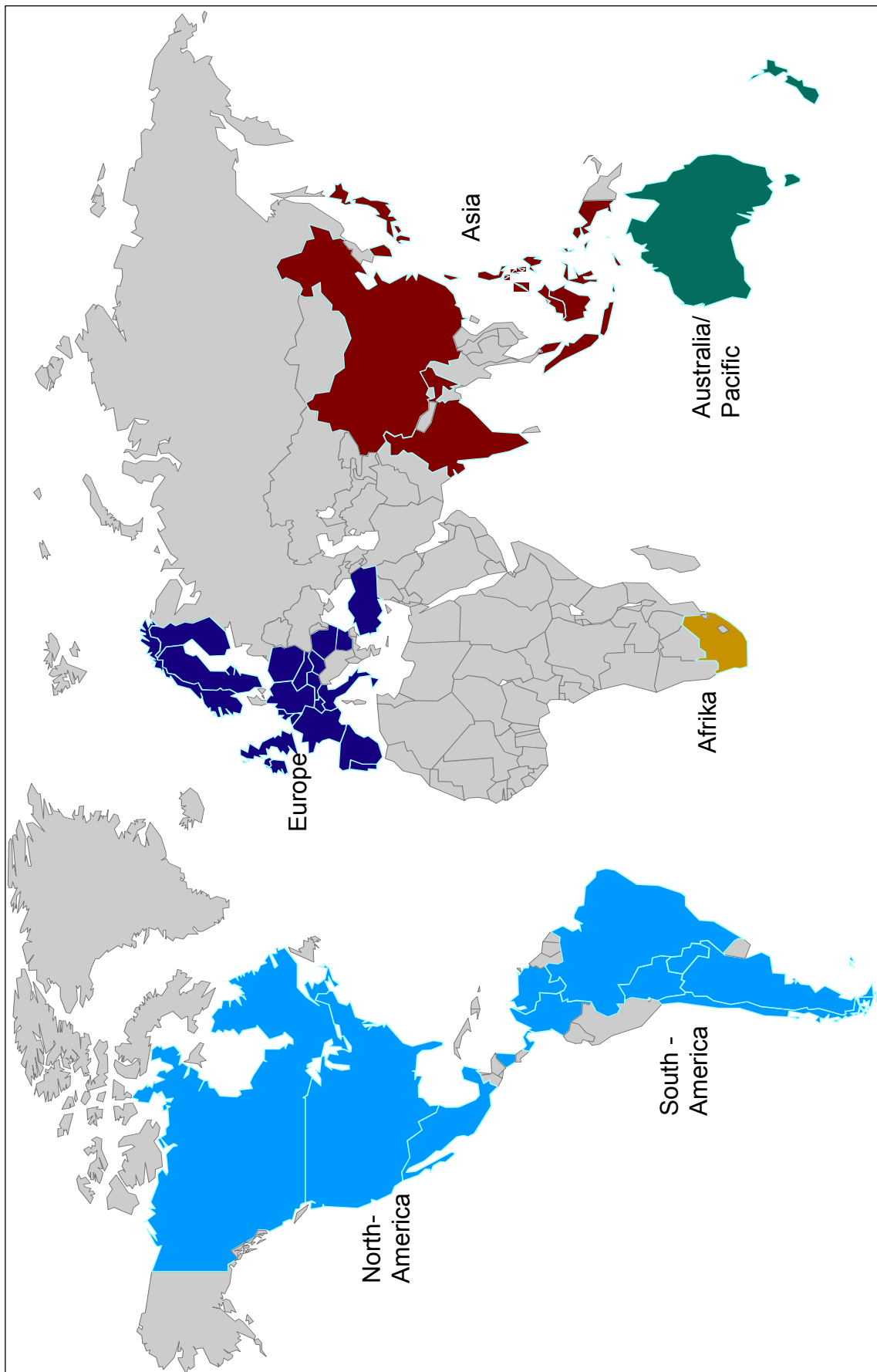


Figure 16: The Spectrum of Global Securitisation
Source: Authors Compilation

Asia¹⁹⁸

China,¹⁹⁹ Hong Kong,²⁰⁰ India,²⁰¹ Indonesia,²⁰² Japan,²⁰³ Korea,²⁰⁴ Malaysia,²⁰⁵ Philippines,²⁰⁶ Singapore,²⁰⁷ Taiwan²⁰⁸ and Thailand.²⁰⁹

Australia/Pacific

Australia²¹⁰ and New Zealand.²¹¹

Europe²¹²

Austria,²¹³ Belgium,²¹⁴ Bulgaria,²¹⁵ Czech Republic,²¹⁶ Finland,²¹⁷ France,²¹⁸ Germany,²¹⁹ Hungary,²²⁰ Ireland,²²¹ Italy,²²² Latvia,²²³ Lithuania,²²⁴

¹⁹⁸ Cf. Wong, *et al.* (2003), p. 170.

¹⁹⁹ Cf. Thomas and Chen (2003), p. 180.

²⁰⁰ Cf. Showering and Mazzochi (2003), p. 183; Sing, *et al.* (2003), p. 31.

²⁰¹ Cf. Nath (2003), p. 187.

²⁰² Cf. Santoso and Boer (2003), p. 192.

²⁰³ Cf. Egawa (2003), p. 164; Lewis (2003), p. 196; Sing, *et al.* (2003), p. 32.

²⁰⁴ Cf. Bulmer (2003), p. 202; Sing, *et al.* (2003), p. 32.

²⁰⁵ Cf. Showering and Rath (2003), p. 207.

²⁰⁶ Cf. Ledesma and Jirasetpatana (2001), p. 1; Morales (2003), p. 216.

²⁰⁷ Cf. Janssen and Pinsler (2003), p. 219.

²⁰⁸ Cf. Mazzochi, *et al.* (2003), p. 223.

²⁰⁹ Cf. Jennings-Mares and Thammavaranucupt (2003), p. 227.

²¹⁰ Cf. Cox, *et al.* (2003), p. 174.

²¹¹ Cf. Murphy (1996), p. 581; Wetherell (2003), p. 212.

²¹² Cf. Clifford Chance European Securitisation Group (2001), p. 36; Collingridge, *et al.* (2003), p. 243; Herrmann (2001), p. 25; Jeffrey (2001), p. 15; Rajendra, *et al.* (2003), p. 234; Sampson (2001), p. 1; Weiffenbach and Ghali (2003), p. 247.

²¹³ Cf. Fabian, *et al.* (2003).

²¹⁴ Cf. Deux (2003).

²¹⁵ Cf. Spasov (2003).

²¹⁶ Cf. Krauss, *et al.* (2001).

²¹⁷ Cf. Westerlund, *et al.* (2003).

²¹⁸ Cf. de Kergommeaux and Saint Marc (2003); de Kergommeaux and Saint Marc (2001).

²¹⁹ Cf. Krauss (2001), p. 58; Kreppel (2003), p. 273; Lamers (2003), p. 25.

²²⁰ Cf. Deri (2003).

²²¹ Cf. Galvin (2003).

²²² Cf. Ago and Battaglia (2001); Danusso and Castorino (2003).

Luxembourg,²²⁵ Netherlands,²²⁶ Norway,²²⁷ Portugal,²²⁸ Poland,²²⁹ Romania,²³⁰ Spain,²³¹ Sweden,²³² Switzerland,²³³ Turkey²³⁴ and United Kingdom.²³⁵

4.1.2 Study Setup

The international comparison is made up of three case studies: relating to Real Estate Securitisation Singapore, the United States of America and Europe. As there is very little information on Real Estate Securitisation, the analysis is based on 23 recorded and transcribed structured interviews that were conducted in Singapore (July/August 2003), in the United States (August/September 2003) and in Europe (November 2003). The transcripts of those interviews are enclosed for reference in the appendix of this thesis. In addition newspaper, magazine and journal articles (if available) were used to give a comprehensive picture of the respective markets, their evolution, the overall framework for Asset-Securitisation in and the core determinants of the respective market. Two of the interviews used were required to be made anonymous. A complete list of interview partner and companies involved can be observed in Chart 1, Chart 2 and Chart 3.

²²³ Cf. Smilgaine (2003).

²²⁴ Cf. Stasevicius and Reciuinas (2003).

²²⁵ Cf. Schmitt and Lazard (2003).

²²⁶ Cf. Crans, *et al.* (2003); Kellermann (2001).

²²⁷ Cf. Winther (2003).

²²⁸ Cf. Pereira and Mendes (2003); Smithson and Maia de Loureiro (2001).

²²⁹ Cf. Krauss, *et al.* (2001).

²³⁰ Cf. Nestor (2003).

²³¹ Cf. Berricano and Rojas (2003).

²³² Cf. Högström and Rydin (2001); Högström, *et al.* (2003).

²³³ Cf. Kroll (2001); Rayroux and Kühni (2003).

²³⁴ Cf. Pekin, *et al.* (2003); Pettit (2001).

²³⁵ Cf. Croke, *et al.* (2003); Geberbauer and Hebburn (2001).

Name	Position	Division	Company	Country
Johannes Boeckmann	Managing Director	Real Estate Investment Banking	Eurohypo AG, North America	USA
Thomas R. Boemio	Senior Supervisory Financial Analyst	Division of Banking Supervision and Regulation	Federal Reserve	USA
Jason C. Cave	Chief	Policy Section	Federal Deposit Insurance Corporation	USA
Stephen H. Choe	Vice President	Real Estate Debt Markets	Deutsche Bank Securities Inc.	USA
Patrick J. Corcoran	Director	Real Estate Structured Finance	JP Morgan	USA
Warren S. Ashenmil	Managing Director	Structured Finance	Legg Mason Wood Walker, Inc.	USA
Richard A. Jacobs	Managing Director	Structured Finance	Legg Mason Wood Walker, Inc.	USA
Thomas E. Robinson	Managing Director	Investment Banking	Legg Mason Wood Walker, Inc.	USA
Martin C. Mitsoff	Managing Director	Research & Strategy	Legg Mason Wood Walker, Inc.	USA
Sharon Lee Stark	Managing Director	Fixed Income Capital Markets	Legg Mason Wood Walker, Inc.	USA
Darren M. Wolberg	First Vice President	Institutional Mortgage Securities/CMBS	Legg Mason Wood Walker, Inc.	USA
Tyler Yang, Ph.D.	President		Integrated Financial Engineering	USA

Chart 1: Interview Partners in the United States

Name	Position	Division	Company	Country
Joseph Ooi	Assistant Professor	Department of Real Estate	National University of Singapore	Singapore (Asia)
David Ho Kim Hin	Associate Professor	Department of Real Estate	National University of Singapore	Singapore (Asia)
Sing Tien Foo	Research Director	Centre for Real Estate Studies	National University of Singapore	Singapore (Asia)
Franklin Heng	President	Real Estate Investment	Ergo Tru Asia	Singapore (Asia)
Lawrence Yeo	CFO	CapitaLand Commercial Limited	CapitaLand Inc.	Singapore (Asia)
Seck Wai Kwong	CFO	Board of Directors	Singapore Exchange	Singapore (Asia)
Anonymous	N/A	N/A	N/A	Singapore (Asia)

Chart 2: Interview Partners in Singapore

Name	Position	Division	Company	Country
Clive D. Bull	Vice President	Real Estate Structured Finance	JP Morgan Securities Ltd.	Europe
Leonard Van Drunen	Managing Director	Real Estate Structured Finance	JP Morgan Securities Ltd.	Europe
Caroline Philips	Managing Director	Securitisation - Real Estate Investment Banking	Eurohypo AG, London	Europe
Paul Rivlin	Managing Director, Joint CEO	Real Estate Investment Banking	Eurohypo AG, London	Europe
Robert Rügemer	Director	German Coverage	AMBAC Assurance UK Limited	Europe
Rolf Steffens	Managing Director	Securitized Products Group	Deutsche Bank AG	Europe
Anonymous	N/A	N/A	N/A	Europe

Chart 3: Interview Partners in Europe

The interview structure was derived out of the research framework. The questions were separated into two categories:

1. **Transaction specific questions** on borrowers/sellers/originators, assets and motives for Real Estate Securitisation transactions.
2. **Environment specific questions** on regulatory/legal, tax, accounting, rating agency, investor and real estate/local/cultural environments.

The interview question guide can be observed below.

List of Interview Question:

Part 1: Transaction specific questions (borrowers, assets, motives):

1. Have there been Real Estate Securitisations in Singapore/US/Europe?
How were these deals structured? Why?
2. Who are the typical sellers in Real Estate Securitisation transactions in Singapore/US/Europe?
3. What are the common securitised commercial real estate assets?
4. What are the common motives for doing these transactions?
5. Are the transactions off-balance sheet?
6. Are there any embedded options inherent in these transactions?
7. How were they placed, i.e. public or private placement?
8. Who took the Junior “first loss/equity piece”? Is it difficult to place those?
9. Were the transactions all rated? Also the private placements?
10. What would be the most important motivation for corporates to do Real Estate Securitisation in Singapore/US/Europe?
 - a. Financing of real estate / Refinancing of existing loans
 - b. Sale of real estate
 - c. To get the assets off the balance sheet
 - d. Capital markets exposure (broadening the financing of the company)
 - e. Getting a capital markets financing without having a corporate rating
 - f. Getting investment grade funding while having a non investment grade rating
 - g. Non-recourse loan

Part 2: General questions concerning the US/Singapore/European Market (regulatory/legal, tax, accounting, rating agency, investor and real estate/local/cultural environment):

1. What is the tax treatment on the SPV level as well as on the investor level? Which taxes apply in the transaction?
2. Have there been offshore Real Estate Securitisation transactions? Why?
3. Has there been a change in the regulatory environment to favour Real Estate Securitisations (laws or regulations)? If so what were those and when did they happen?
4. Is it legally possible to set up a bankruptcy remote structure? Was it always that way, or did any laws change this?
5. Are there accounting issues with US Real Estate Securitisation transactions? Has this changed since the collapse of Enron?
6. Are there any peculiarities in the US market compared to Europe?
7. Do you think the real estate/local/cultural environment played a role in the structure of these Securitisation transactions?
8. What are the investors preferences when it comes to US Real Estate Securitisations?
9. What is your outlook for the US Real Estate Asset-Securitisation market in the future?

Chart 4: Interview Question Guideline - International Comparison

As explained above, information sources on Real Estate Securitisation are few. Therefore, the information gathered by the conducted interviews is enhanced with additional information in order to derive a most complete picture of the respective market. In addition to the sources quoted above, Rating Reports from the three Rating Agencies (Fitch Ratings, Standard & Poor's and Moody's Investor Service) are used to enhance the data and information. Specific market data (e.g. new issuance volume, division of asset classes etc.) is also gathered from Rating Agencies' Special Reports as well as from selected Investment Banks' Securitisation Research Reports.

The three following chapters (4.2, 4.3 and 4.4) relating to the different case studies will all have the same chapter structure that goes back to the research framework delineated in chapter 3.4. The chapters will go into detail on the Real Estate and Asset-Securitisation markets in Singapore, the US and Europe.

Each sub-chapter will first do a literature review on the respective markets and will delineate sources of information on the evolution of that market. Then a market overview will demonstrate the evolution of the Real Estate Securitisation market, drivers influencing that development and the state that the market is currently in. It will start with a brief description of market specific definitions and terminology and then it will give an introduction to the market, followed by a summary of identified Real Estate Securitisation transactions. The market overview chapter will set the scene for the subsequent analysis of the specific environments.

The analysis of the different environments influencing the evolution and inception of Real Estate Securitisation markets will explain the framework for Securitisation in the respective countries.

The subsequent part will review the core determinants (borrowers/originators/sellers, assets, motives) in the analyzed region and will relate those to the transaction schemes used. The sub-chapters will conclude with an analysis summary of the respective market.

Eventually this chapter will combine the conclusions and findings of the three case study sub-chapters into a result analysis, which is made up of the following parts:

- Market Evolution Patterns
- Influence of Environments on the Market
- Typical Core Determinants
- Minimum Evolution Requirements for Real Estate Securitisation

Finally the 'Chapter Summary' will conclude the international comparison.

4.2 Singapore

Since there is not much information and data on Asset-Securitisation and especially Real Estate Securitisation transactions in Singapore,²³⁶ most of the information used in the following part is based on the author's compilation of pieces of information from different sources, such as structured interviews, newspaper and magazine articles, and rating as well as company reports.

This Chapter will briefly go over academic literature on Asset-Securitisation and Real Estate Securitisation in Singapore. Subsequently, it will give an overview of the Singapore Asset-Securitisation market, which is essentially the Real Estate Securitisation market, because in the beginning of the market real estate was the only asset class utilised. This sub-chapter will go into the evolution of the market and the identified transactions up to date. Then the different environments will be highlighted and analysed. Finally, the analysis of the core determinants will put together the picture and show who the originators and borrowers were in Singapore, which assets they used and for what motives. The analysis will also investigate the different kinds of transaction structures and will conclude with a summary.

4.2.1 Literature Review

There are several journal articles, conference papers, research project reports and bachelor as well as master theses written on the topic of Asset-Securitisation and Real Estate Securitisation in Singapore. The Department of Real Estate within the School of Design and Environment at the National University of Singapore (NUS) has been very active in the field of Real Estate Securitisation research – especially regarding the Singapore experience. So nearly all of the academic sources on Asset-Securitisation and Real Estate Securitisation in Singapore origin out of the NUS Real Estate Department.

²³⁶ It is difficult to gather data, because there are no official institutions in Singapore gathering information on private transactions. The first deals were all private transactions and there are no compulsory publications for those deals. Cf. Sing (2003), Interview 5, p. 554; Ooi (2003), Interview 4, p. 554.

The first study done on this topic was a master thesis case study evaluating the feasibility and advantageousness of Securitisation for commercial real estate companies. This was followed by publications on three different equity and debt Securitisation vehicles utilised in Singapore: Real Estate Investment Trusts (REITs), Mortgage-Backed Bonds (MBB) and Asset-Backed Securitisations. In these publications the importance of a secondary real estate market for Singapore as well as the feasibility and utilisation of the different ways of raising funds were analysed.²³⁷

Moreover, two other bachelor and master theses were written that go into the governance of Securitisation transactions as well as the benefits of using Real Estate Securitisation as a source of funding.²³⁸

In addition to that, several studies evaluated the first Real Estate Securitisation transactions including the embedded option structures utilised by Singapore Corporates and Developers. Most of the research at that stage covered the unique structural aspects of those transactions. Especially the valuation of embedded options and the adequate pricing of the issued bonds were in the focus of Singapore researchers. Using bonds in Securitisation transactions was not new,²³⁹ but the way they were utilized in combination with the underlying asset in accordance with the motives followed by the originators and borrowers was new and unique to Singapore. So, this led to an immense academic interest and a big amount of application-oriented research.²⁴⁰

This was accompanied by different research projects carried out by the Centre for Real Estate Studies at the National University of Singapore. The studies included an analysis of equity and debt Securitisation,²⁴¹ a compilation of the feasibility of different real estate financing alternatives in Singapore (including debt financing, equity financing, sale-leaseback financing, Real Estate

²³⁷ Cf. Ong, *et al.* (2001), p. 1; Ong, *et al.* (2000), p. 54.

²³⁸ Cf. Heng (2002), p. 1; Tay (2002), p. 1.

²³⁹ Cf. Bhattacharya (2001), p. 1127; Dialynas, *et al.* (2001), p. 1103; Fabozzi, *et al.* (2001), p. 773; Johnston (2001), p. 759.

²⁴⁰ Cf. Lim (2000); Sing, *et al.* (2003), p. 173; Tan (2000); Yong (2002).

²⁴¹ Cf. Ong, *et al.* (2001), p. 1.

Securitisation and REITs)²⁴² and a comprehensive final report on Asset-Backed Securitisation in Singapore. This report summarizes all the research done up to that point concerning Real Estate Securitisation in Singapore, including its potential, risks, governance, credit enhancements, values, options and pricing.²⁴³

The latest research on Asset-Securitisation in Singapore goes away from Real Estate Securitisation into the field of Mortgage-Backed Loan Securitisation. Here, the feasibility of Residential and Commercial Mortgage-Backed Securitisation as well as the potential interest from the bank originator and investor side are analysed.²⁴⁴

Even though there has been quite a bit of research on Asset-Securitisation in Singapore, what has been missing, however, is a framework for analyzing this market. There is no comprehensive study putting together the evolution of the market into a model that shows how the different environments have influenced the originators/borrowers, assets and motives (i.e. the core determinants). Moreover, no complete study has been made identifying the drivers fuelling the evolution of the market and the development of the different environments. Apart from that a comprehensive compilation of all Real Estate Securitisation transactions analyzing the structural features as well as the parties involved, their assets and motives is missing.

4.2.2 Market Overview

4.2.2.1 Evolution and State of the Market

The analysis of Asset-Backed Securitisation, as Real Estate Securitisation transactions were first called in Singapore, shows the typical evolution of such a market. Thereby the structures in Singapore come the closest of all other analyzed structures to the concept of Real Estate Securitisation introduced in Chapter 3. This is the reason why this chapter will be overweight compared to the other chapters on the USA and Europe.

²⁴² Cf. Ooi, *et al.* (2002), p. 1.

²⁴³ Cf. Sing, *et al.* (2003), p. 1.

²⁴⁴ Cf. Sing and Ong (2004), p. 159; Sing, *et al.* (2004), p. 1; Tan (2001), p. 1.

Singapore:

Singapore is a city-state located at the southern end of the Malaysian peninsula that covers a total area of 647 square kilometres and has a population of 4.2 million. Singapore is Southeast Asia's educational and financial capital. Its 'AAA' rating is supported by its high per capita GDP and persistent current account surpluses of 20% of GDP or more. Besides flexible monetary and exchange rate policies, the robust public finances – with recurrent fiscal surpluses of over 5% of GDP and large public sector net assets – have helped Singapore contain the fall-out from the Asia crisis. Since then, Singapore has started to implement a wide range of reforms and economic restructuring in the financial sector. However, the government still retains a pervasive involvement in the economy, especially through its control over Government-Linked Corporations (GLC).²⁴⁵

History of Asset-Securitisation:

The evolution of Real Estate Securitisation is the result of Singapore's unique institutional structure. The secondary investment market was dominated by equities while the debt market was on the whole under-developed. Real estate was traditionally regarded as a direct investment. So, on the one hand the potential for a secondary real estate market in Singapore was immense, especially regarding the asset rich balance sheets of Singapore's government-linked developers at the time. And on the other hand the traditional source of funding for property companies in Singapore was the banking market that led into a credit crunch following the Asian Financial Crisis. Moreover, the problem with bank lending was that lenders were reluctant to provide medium or long-term fixed rate interest funding.²⁴⁶

Therefore, the development of a secondary real estate market was linked to that of the debt market. In this respect, the concept of property-backed debt Securitisation was not exactly new to Singapore. The very first Mortgage-

²⁴⁵ Cf. Tan and McCarthy (2004), p. 6.

²⁴⁶ Cf. Ong, *et al.* (2001), p. 9.

Backed Bond (MBB)²⁴⁷ was issued in 1986. It was a time of recession and restrictive loan commitment policies. Hence, government officials were very receptive for new ideas to keep the real estate market growing: “They said let us try it!”²⁴⁸ The first company to issue such a security had to go through a lot of trouble and negotiations. Company acts and regulations had to be changed. Once the new rules and changes were instituted the issuance of Mortgage-Backed Bonds became easier and made this market grow. This opened an investor market, which from the beginning had been very narrow – coined by insurance companies and some corporates. Private investors and foreign investors were not keen on investing in Singaporean securities at the time, because of tax issues that were not resolved until 1998.²⁴⁹

In fact, the first Mortgage-Backed Bond was issued in 1986 by Hong Leong Holdings Ltd, which pledged a first legal mortgage on the Hong Leong Building to investors in a MBB transaction. Then in the 1990s, the Far East Organization stood out as one of the most active issuers of Mortgage-Backed Bonds in Singapore.²⁵⁰ However, the regulatory instance of Singapore – Monetary Authority of Singapore (MAS) – had been stringent on its approval of the sale of such mortgage-backed bonds, restricting its approvals to sophisticated investors; retail investors were not allowed to invest at all. Bonds in denominations of S\$250,000 were commonly issued. Due to the small circulation and lack of an active secondary market, these bonds were usually held to maturity. A secondary market for those bonds did not exist. Even though the bond market was still strongly underdeveloped, MBB issues provided a

²⁴⁷ Traditional Mortgage-Backed Bonds differ from Real Estate Securitisation/Commercial Mortgage-Backed Securities in the sense that the asset pools are not separated from the originating company's balance sheets, whereas in the case of the later the assets are sold to a special purpose vehicle (SPV) that finances the acquisition by issuing bonds.

²⁴⁸ Cf. Yeo (2003), Interview 2, p. 554.

²⁴⁹ It was until 1998 that changes were made to promote the bond market – this was when the Approved Bond Intermediaries (ABI) came into being and an exemption from income tax for foreign investors and a 10% income tax for domestic investors was instituted, which promoted the evolution of the bond market. Cf. Yeo (2003), Interview 2, p. 554.

²⁵⁰ Cf. Anonymous (1998c), p. 11.

platform for Real Estate Securitisation, as investors became more familiar with fixed-income instruments and real estate-backed bonds.²⁵¹

In addition to the history of real estate debt Securitisation, regulations had been ambivalent towards the establishment of Equity Securitisation in the form of property funds. Hence, Asset-Securitisation as a form of Debt Securitisation appeared to be the most successful vehicle at the time. This was spurred in part by the unique accounting rules of the Singapore Accounting Standards, but also by the realignment strategies of all major real estate developers.²⁵²

In order to understand the general background of what fuelled the evolution of Real Estate Securitisation in Singapore, it is important to look at the general environment in Singapore at the time, when the first Real Estate Securitisation took place in Singapore in 1999. There were two main drivers:²⁵³

1. The Asian financial crisis.
2. A stronger orientation of real estate developers and property companies towards an asset-light approach - companies wanted to lighten their balance sheet. They rather wanted to get away from holding real estate in order to channel their capital to development properties. In general, the primary motive for the first companies to do Real Estate Securitisations was that they wanted to sell their real estate. Asset-Securitisation was just another way to disinvest their real estate holdings, i.e. another divestment vehicle. Instead of an outright sale the companies looked at securitising the real estate. Thereby the first transactions took advantage of unique accounting rules in Singapore.

The primary reason for choosing Real Estate Securitisation as a divestment vehicle for their investment properties over an outright sale was that the transactions resulted in a higher price for the sellers. It was difficult at the time

²⁵¹ Cf. Ooi, *et al.* (2000).

²⁵² Cf. Ooi (2003), Interview 4, p. 554.

²⁵³ Cf. Anonymous (2003), Interview 1, p. 554.

to find buyers who were able to bring up huge sums of money required to by 'trophy' properties.²⁵⁴

Specificity of the Market:

The specificity of Real Estate Securitisation in Singapore resulted out of the first structures that were used at the dawn of the market. The way that the first Real Estate Securitisations worked in Singapore was as follows:²⁵⁵

An investment property was sold to a Special Purpose Vehicle – a company incorporated in Singapore – which issued bonds that were backed by the cash flows and the value of the underlying property to finance the purchase. The bonds were additionally collateralized by a mortgage over the property and were usually enhanced with preference shares attached to them. The coupon for the bond was financed out of the property's rental income stream and the principal amount was to be paid out of the sales value of the property at maturity or before. In the first transactions the sellers usually subscribed to the junior tranche of the bonds and were granted an option to buy back the property at a later stage.²⁵⁶

Real Estate Securitisation transactions opened up property owners an alternative way of raising money in tough times, while structuring it as off-balance sheet financing.²⁵⁷

However, the investors at first were not keen on buying bonds under those transactions, since they were looking at achieving high returns.²⁵⁸ This is why originators in the first stage of Real Estate Securitisation transactions had to improve the coupon for the senior bondholders. To do that they either had to raise the rents significantly, or they had to accept a haircut on capital values (i.e. a reduced sales price), or they to accept a very low yield on the junior

²⁵⁴ Cf. Rashiwala (1999c).

²⁵⁵ Cf. Chow (2003).

²⁵⁶ Cf. Rashiwala (1999a).

²⁵⁷ Cf. Rashiwala (2001).

tranche to the benefit of the senior tranche holders. Hence, the seller typically subscribed for the higher-risk junior bonds, which received least priority in the event of a default and that often received a relatively low interest.²⁵⁹

There were three features that made the early Real Estate Securitisation transactions unique to Singapore are described below:²⁶⁰

1. Firstly, there was an explicit option in the Securitisation agreement that entitled the originator to lease back the property wholly or partially from the SPV for a period not longer than the bond maturity. In return, the originator guaranteed to pay the SPV rentals and other income, which were equivalent to or exceeded its interest obligations to the bondholders.
2. Secondly, the Securitisation agreements incorporated explicit call options that allowed the bond originator to claim the capital appreciation in the property. The call option was an American-type option exercisable anytime within a pre-specified period before the expiration of the bond. The call option gave the bond originator the right to buy back the building at a discount to the prevailing market valuation but at no less than the original purchase price of the SPV. In the early cases 65 to 75% of property appreciation was granted to the originator. The remaining 25 to 35% capital gains retained by the SPV was redistributed to the participating bondholders by way of preference shares attached to the bonds. If the option were not exercised at the date of maturity, the special purpose vehicle would then sell it to other parties or issue new bonds to fund the redemption of the expiring tranches.
3. Thirdly, a put option was added into some of the early deals in order to provide a downside risk protection for the bondholders. In the 268 Orchard Road deal, for example, a put option clause was included into the transaction requiring the originator (DBS Land) to buy back the

²⁵⁸ In 1999, the yields – especially of office properties – were low, due to high asset values. Office yields ranged around 4.5-4.7%, which was lower than yields required by institutional investors. Cf. Ooi, et al., *Business Times Singapore* (27 April 2000).

²⁵⁹ Cf. Sing (2003), Interview 5, p. 554; Rashiwala (2001).

building at its 'face value' plus a premium. The premium of the put option was usually measured at a certain percentage of the capital appreciation realised when the option is exercised. In the case of 268 Orchard Road this was 35%.

Depending on the deal structure, both the original owner (junior bondholder) and all other bondholders could gain from a capital appreciation. The participation of bondholders in the upside of the property was structured into the deals by the issuance of preference shares that were attached to the bonds. This was a strong peculiarity of the Singapore Securitisations, because it allowed debt instruments to be issued with an equity component attached to it. This way a 100% bond structure was established to hold the real estate.²⁶¹

The main Securitisation motive for most companies – especially for the former DBS Land²⁶² – was to get the properties off-balance sheet. Since, in the beginning, the assets were considered 'sold', the companies could remove them from their balance sheets and retire debt related to the properties, thus lowering the gearing ratio.²⁶³

However, the transactions in Singapore also showed that Real Estate Securitisation is not attractive to all property owners. The transactions do not necessarily lead to cheaper funding than bank loans because of the long-standing relationship that developers – especially in Singapore – have with their house banks.²⁶⁴

Apart from the bank relationship, the financing conditions in a Real Estate Securitisation depend heavily on the assets being securitised. Those have to be acceptable to bond investors. The coupon rate attached to the bonds depends on the quality of the property and the structure of the deal. Most critical is the ability of the SPV to service coupon payment, i.e. a sufficient property cash flow

²⁶⁰ Cf. Ooi, *et al.* (2000).

²⁶¹ Cf. Heng (2003), Interview 7, pp. 554.

²⁶² After the merger with Pidemco Land in 2000, DBS Land is today called CapitaLand. Cf. Yeo (2003), Interview 2, p. 554.

²⁶³ Cf. Sing (2003), Interview 5, p. 554.

²⁶⁴ Cf. Rashiwala (2001).

and the amount of bonds issued vis-à-vis the valuation of the asset, i.e. an adequate value of the property. Hence, the poorer the asset quality, the higher the coupon rate and the more difficult it is to place the issuance. The owner of a non-prime property would end up paying a higher interest rate for bonds or raising less money under a Real Estate Securitisation deal than he would under a bank loan. This is the reason why the securitised properties in Singapore were all 'Trophy Properties'.²⁶⁵

Since cheap funding was not a motive in the early deals, monetization of the asset and off-balance sheet funding were the main drivers:

*"If the purpose is to take the asset off the balance sheet (and lower gearing), an Asset-Securitisation may be worthwhile. But if the issuer has no problem with keeping the assets in its books and just needs another source of funding, a bank loan may be a cheaper source of funds."*²⁶⁶

In any case, with Real Estate Securitisation the Singaporean developers had the option to diversify their funding sources. This was especially important in the credit crunch of 1999, following the Asian financial crisis.²⁶⁷

Evolution of Real Estate Securitisation:

DBS Land – Singapore's biggest government-linked developer – was the pioneer of Asset-Securitisation in Singapore. In 1999, DBS Land had raised S\$1.3 bn by securitising three office buildings. By doing that the company became the first listed developer to securitise entire buildings.²⁶⁸ This helped the company to improve cash flow and gearing, and reduce money tied up in what were 'low yielding' properties.²⁶⁹

As mentioned before, in the beginning, the placement structure for most transactions was as follows: the senior tranche was placed out to institutional investors and the junior tranche was taken on by the originator of the

²⁶⁵ Cf. Yeo (2003), Interview 2, p. 554.

²⁶⁶ Ng Kwan Meng, Senior Vice President, Overseas Union Bank in: Rashiwala (2001).

²⁶⁷ Cf. Ooi (2003), Interview 4, p. 554.

²⁶⁸ Cf. Anonymous (2000c).

²⁶⁹ Cf. Anonymous (2000a).

transaction, i.e. the developer, who thus still had the control over the properties by the use of buyback options and preference shares.²⁷⁰

In fact, the companies that securitised their real estate assets in 1999 considered the assets technically and legally sold. For them Real Estate Securitisation was, therefore, not a financing exercise but a divestment exercise. The view of the market in the earliest stage of the market can be described as Jeanne Wong²⁷¹ put it in an article in early 2000.²⁷²

1. Firstly, the Securitisation of the real estate assets (as in the case of 268 Orchard Road, Robinson Point, and 6 Battery Road for DBS Land) was usually in line with the company's strategy to divest their lower yielding investment properties. It was not embarked upon as a fund-raising exercise.
2. Secondly, these securitised assets were not regarded as long-term loans. Their legal titles had been transferred to independent special purpose vehicles (SPV) administered by a trust. Hence, the originating companies, i.e. the sellers did not exercise any control over the SPV.
3. Thirdly, the granting of put options to investors did not pose a problem for the developers. Under those structures, the company only needed to buy back the property, if the bondholders would exercise the put option. This was only valuable to bondholders in the case of declining capital values. However, in the case of rising capital values – as was assumed by most developers at the time – the companies could capitalize on the appreciation in value of these securitised properties by exercising the call option. The company could buy back these assets, resell them and realise a share of the capital appreciation. This would then nullify the put option.
4. Fourthly, the properties were sold at independently determined market values. The SPVs funded the purchase of the properties by issuing

²⁷⁰ Cf. Chow (2003).

²⁷¹ Senior Manager, Corporate Communications, DBS Land.

²⁷² Cf. Wong (2000).

bonds – usually 2/3 in Senior Bonds and 1/3 in Junior Bonds. The originators were holding the Junior Bonds that had a value to them, which could be realised when disposed of at a later stage. Hence, the originators considered themselves as investors in the bond issue and not as equity holders in the real estate.

5. Finally, the auditors at the time had confirmed that the treatment of these transactions in the developer's accounts complied with the Singapore Accounting Standards.

In the second stage of the market (2000/2001) this view changed. After the Singapore Accounting Board partly accepted the International Accounting Standards (IAS), the early Securitisation transactions were considered more a form of refinancing than a form of divestment of assets. For example, the first three buildings securitised by DBS Land in 1999 – 268 Orchard Road, 6 Battery Road and Robinson Point –²⁷³ all came with buyback and put options.

After a management change, ahead of DBS Land's merger with Pidemco Land to form CapitaLand, the thinking changed and hence the properties and the liabilities came back on balance sheet. This was done under an accounting reversal in July 2000. Because of the put options incorporated in the transactions the group had in effect held contingent liabilities for the properties and had, therefore, not truly sold the properties. DBS Land had also subscribed for all S\$460 million²⁷⁴ of junior bonds in the three transactions, holding 100% of the first default risk.²⁷⁵

This circumstance was also the reason, why there was only one transaction in 2000, following 7 transactions in 1999. The only one transaction in 2000 (Wilby Residence), was not arranged because of the company seeking to do balance sheet management, but it was purely motivated by the company being

²⁷³ Robinson Point was securitised for \$193 million; 268 Orchard Road, \$184 million; and Six Battery Road, \$878 million. Cf. Rashiwala (2002d).

²⁷⁴ DBS Land had taken up all the junior bonds of all three transactions, which amounted to 35% of the total transaction volume of S\$1.3 bn over all three transactions. In effect, DBS Land had only sold 65% of its buildings to outsiders, who had first recourse to the buildings and a put option to guarantee their principal. Cf. Anonymous (2000a).

²⁷⁵ Cf. Rashiwala (2002e).

desperate to sell the property due to Singaporean regulatory rules requiring the Hong-Kong company to sell its development within two years of completing its projects.²⁷⁶

So after having to deal with stricter accounting guidelines and with the Securitisation transactions being on-balance sheet again, DBS Land's successor company CapitaLand exercised the options to buy back the properties when they became due in 2002 and 2003.²⁷⁷

It was an opportune time to refinance and the company was looking to secure the best terms for all funding exercises. CapitaLand saved on interest costs by switching to bank loans - taking advantage of the low interest environment, achieving annual interest expense savings of S\$12-16 million assuming a 4.5% and 4% refinancing cost respectively.²⁷⁸

*"They [the issued bonds] were just too expensive and they were boomerang bonds, because they came back on balance sheet. But also it did not fit into our future strategy – as I said, we want to free up the properties."*²⁷⁹

So, over time the structural features of transactions changed. In a second stage of the market, transactions were originated to sell the assets and to get the properties off-balance sheet, i.e. Securitisation as a divestment rather than a financing exercise. Such deals as Wisma Atria, Capital Square and Compass Point, were 'true sale' Real Estate Securitisation deals, leaving no control or liability (buyback or put option) to the originator.²⁸⁰

Other innovative off-balance financing structures were invented for residential condominium development projects. Under those transactions future sales proceeds and sales receivables in the form of progress payments were securitised. This allowed for bringing forward future gains as well as the

²⁷⁶ Cf. Rashiwala (2000a).

²⁷⁷ Cf. Chow (2003).

²⁷⁸ Cf. Rashiwala (2002e).

²⁷⁹ Cf. Yeo (2003), Interview 2, p. 554.

²⁸⁰ Cf. Chow (2003).

replacement of projects, making it possible to capitalise on prevailing low interest rates to tap long-term funds.²⁸¹

State of the Singapore market today:

*"There are a lot of office blocks for sale. If you cannot sell it the traditional way, then securitise it."*²⁸²

Today the Singapore market has moved on to a third stage. Developers are still trying to liquefy their real estate assets and the secondary real estate investment market has moved into an upswing between debt (Real Estate Securitisation) and equity (Real Estate Investment Trusts) Securitisation.²⁸³

CapitaLand, which is still 61%-owned by the Singapore government, is yet leading the way for financial innovation in Singapore. And it remains focused on its goal of being 'asset-light', looking for ways to maximize its property-developing potential without tying up valuable bank loans.²⁸⁴

*"We want to look at not only the cheapest source of funds but also the global investors' risk appetite for the Asian property play. To date, we have seen very keen interest in CapitaLand's fund-raising activities."*²⁸⁵

This way CapitaLand from 2000 to 2004 has monetised more than \$5 billion of assets through **Real Estate Securitisation**, **Direct Sale** of properties and the **Flotation** of the first retail (CapitaMall Trust) and office (CapitaCommercial) real estate investment trust (REIT).²⁸⁶ The later was launched in May 2004 after the developer re-valued its office portfolio and wrote down the properties' values to levels that translated into yields that were acceptable to institutional investors. The REIT is backed by a property portfolio consisting of 7 prime quality real estate assets including two of the properties that had been previously disinvested in a Real Estate Securitisation and were then brought back on balance sheet: 6 Battery Road and Robinson Point. The S\$2.02 bn acquisition

²⁸¹ Cf. Chong (2001).

²⁸² Donald Han, Managing Director, Cushman & Wakefield Cf. Chow (2003).

²⁸³ Cf. Lam (2004a), p. 4. Cf. Lam and Cheng (2003), p. 4.

²⁸⁴ Cf. Lane (2004).

²⁸⁵ Wen Khai Meng, Deputy CEO, CapitaLand Financial. Cf. Lane (2004).

of the portfolio by CapitaCommercial Trust was financed by a CapitaLand sponsored special-purpose vehicle that sold US\$341 m in Singapore's first Commercial Mortgage-Backed Securities (CMBS) issuance.²⁸⁷ Other recent deals in this stage have demonstrated the increasingly diversifying asset base within Real Estate Securitisation in Singapore. Deals included a Securitisation of rental lease receivables from the Siemens Center Building, which is still under construction, a CapitaMall Trust CMBS issue, and a deal involving the sale of contracts for the purchase of yet to be completed apartment units in a residential housing project.

Spurred by this development Singapore developers are today reassessing the potential of the structure as they position themselves for a recovery in the real-estate market and for expansion in Singapore and overseas. The revived interest goes along with the upswing of the Singapore property market. Developers are still seeking to get low yielding properties off their balance sheets, to internationally diversify their investor base and to boost their return on capital by focusing on development over ownership. However, even though Securitisation is a way for developers to unlock the value of their properties, the property values are dependent on their occupancy rates and rental yields. So only high yielding properties will bring high monetisation values.²⁸⁸

Asset-Securitisation in Singapore continues to be largely focussed on property assets: the former structures are being substituted by internationally recognized CMBS structures. CMBS as well as Securitisations of residential development proceeds are on the rise and given the circumstance that banks are required to off-load their non-core assets will also bring more rated transactions to the market. Yet, there also remains to be a large number of Real Estate Securitisation deals in Singapore, which are not rated but launched on the local domestic market. The potential keeps on growing, as cost of funding will go up and capital availability will become scarcer.²⁸⁹

²⁸⁶ Cf. Rashiwala (2003d).

²⁸⁷ Cf. Rashiwala (2002e).

²⁸⁸ Cf. Lane (2004).

²⁸⁹ Cf. Sing (2003), Interview 5, p. 554; Murra (2003).

*“Singapore is emerging as a genuine player in the small but relatively sophisticated real estate finance market that is developing across Asia-Pacific. While capital markets in Japan and Hong Kong (and to a lesser extent, Australia) have played visible roles in real estate financing for many years, Singapore, with over US\$1 billion in capital raised since 2002, is increasingly seen as a factor in the REIT and securitized real estate market arena.”*²⁹⁰

4.2.2.2 Identified Transactions

The Citations cited in the footnotes that are adjacent to the transaction name are relating to the sources that the author is using in compiling all the data relating to the specific transaction described. A summary of all the information given is shown in the analysis of the core determinants in Chapter 4.2.4.

NOL – Neptun Orient Lines:²⁹¹

Originator/Borrower

In March 1999, publicly listed Neptune Orient Lines (NOL) Shipping Company originated the first Asset-Securitisation in Singapore. The company, which is a government-linked company, (GLC) securitised its prime piece of real estate – the Headquarter building at Alexandra Road. This transaction was a watershed deal for the local property market at the times of the Asian Financial Crisis. It was also a sign for changing times: high interest rates, high asset values and low loan commitments by banks. Hence, there were no buyers that could finance large asset acquisitions – Real Estate Securitisation was an alternative divestment vehicle: “In good times property purchases did not need to be financed with bonds.”²⁹²

The arranger, DBS Bank,²⁹³ set up a special purpose vehicle, called Chenab Investments Ltd (CIL), whose special purpose was to facilitate the financing of the transaction. In essence Chenab Investments Ltd was the buyer that

²⁹⁰ Scott and Hunt (2004), p. 1.

²⁹¹ Cf. Anonymous (2003), Interview 1, p. 554; Anonymous (1998b); Choong (1998); Kong (1999b); Raj (1998).

²⁹² Choong (1998).

²⁹³ DBS Bank is a Government-Linked Bank and stands for Development Bank of Singapore. It is one of four big commercial banks in Singapore.

acquired the building and funded the purchase through the issue of S\$185 m worth of 10-year fixed rate mortgage-backed bonds to DBS Bank, which in turn placed them out to key investors in Singapore.²⁹⁴

Asset

The asset was the flagship office building on Alexandra Road, that NOL sold to the SPV and leased it back under a 10-year lease agreement with Chenab Investments Ltd.²⁹⁵

Transaction Structure

The structure of this transaction was the first and the pre-eminent structure for the first stage of Real Estate Securitisation transactions in Singapore. The bond issue was fully subscribed by DBS Bank, which in turn sold the bonds to investors. The bonds were separated into 70% senior bonds (6.75 % fixed interest) and 30% junior bonds (7.25 % fixed interest). The originator NOL subscribed to the junior tranche of the bonds, which granted them the opportunity to repurchase the building between the third and fifth years at market rates. A typical Singaporean Real Estate Securitisation transaction feature enhanced the structure – the potential gain upon the sale of the building was shared by all bondholders through the issue of 185 preference shares that were attached to the bonds. So if the building were sold during the 10-year duration of the bonds, investors would stand to benefit from any capital gains to be made.²⁹⁶

Motives

The sale of NOL's Headquarter formed part of the company's announced plan to pare down its S\$5 bn debt burden through the **disposal of non-strategic assets**. So the primary motive was that the originator wanted to divest his real estate assets. The proceeds were supposed to be used to retire NOL debts as

²⁹⁴ Cf. Anonymous (1998b).

²⁹⁵ Cf. Choong (1998).

²⁹⁶ Cf. Raj (1998).

well as buy strategic assets in NOL's core business – shipping and transportation.²⁹⁷

*"We are in the transportation business, not in real estate... while we intend to maintain our office in Singapore, we do not need to own the building when the funds can be better deployed elsewhere."*²⁹⁸

Century Square:²⁹⁹

Originator/Borrower

In June 1999, DBS Bank arranged the second Real Estate Securitisation in Singapore. Under this transaction the originator First Capital Corporation (FCC) – a real estate developer that is today called GuocoLand – securitised the S\$200 m Century Square Shopping Centre. FCC sold its shares in Century Square Development Ltd, which was the owner of the Century Square building to Pemberton Development Ltd. - a special purpose vehicle solely set up for refinancing the acquisition by issuing bonds in the Singapore market.³⁰⁰

Asset

The securitised Century Square shopping mall is a retail asset that is lying next to the Tampines Metropolitan Rapid Transport (MRT) Station. The mall has close to 200,000 sq ft and was completed in 1995. At the time of the Securitisation the property had an estimated value of S\$ 200 m and was built on a site that had 89 years of its 99-year lease left. It had two major tenants: Metro and Shop N Save.³⁰¹

Transaction Structure

The transaction's SPV Pemberton that bought the shares in Century Square funded its purchase through the issue of seven-year bonds in three tranches.

²⁹⁷ Cf. Kong (1999b).

²⁹⁸ Lua Cheng Eng, deputy chairman and group president, Neptun Orient Lines. Cf. Choong (1998).

²⁹⁹ Cf. Ooi (2003), Interview 4, p. 554; Anonymous (1999b); Anonymous (1999e); Anonymous (1999l); Anonymous (1999q); Anonymous (1999s), p. 18; Chong (2002c); Chu (1999b), p. 10; Chu (1999c), p. 7.

³⁰⁰ Cf. Anonymous (1999q).

³⁰¹ Cf. Anonymous (1999q).

The use of a mezzanine tranche in between the senior and the junior tranche was new to the structure that was already utilized in the NOL deal. The senior tranche constituted 50 percent of the total issue; the mezzanine tranche was 35 percent and the junior piece that was also taken on by FCC constituted 15 percent. The Asset-Securitisation exercise resulted in a gain of about S\$50 m for FCC, of which the company deferred S\$30 m in view of its participation in the tranche C bonds through its nominee company.³⁰²

The transaction structure – like in the NOL deal – granted the holder of the junior bonds the right to call the transaction. In 2002, GuocoLand exercised this call option and sold Century Square Shopping Centre in Tampines for \$225-230 million making a net profit of about \$24.7 million.³⁰³

Motives

At the time the main motive was to remove the property from FCC's **balance sheet**, to park the property and make a profit on it at a later stage. The group redeployed the funds by initiating new projects. This was in line with the group's '**divestment of non-core and non-strategic assets**' – strategy.³⁰⁴

Robinson Point:³⁰⁵

Originator/Borrower

The third Real Estate Securitisation transaction came to the market in mid-1999 (July), shortly after the launch of the Century Square deal. Like the previous transactions this one was again arranged and structured by DBS Bank. The originator in this case was a real estate developer called DBS Land that today is known as CapitaLand (DBS Land/CapitaLand are both government-linked corporations). Under this deal, the property was sold to a company specially set

³⁰² Cf. Anonymous (1999b).

³⁰³ Cf. Chong (2002c).

³⁰⁴ Cf. Anonymous (1999e).

³⁰⁵ Cf. Ooi (2003), Interview 4, p. 554; Sing (2003), Interview 5, p. 554; Anonymous (1999g); Anonymous (1999i); Anonymous (1999j); Anonymous (1999k); DBS Bank (1999b), p. 1; Keng (1999).

up to acquire the asset. The company called Visor Ltd. issued S\$193 m worth of bonds together with 19,300 preference shares to fund the acquisition.³⁰⁶

Asset

The asset was a 21-storey office building called Robinson Point, which is one of Singapore's prime office buildings. The transaction was supported by current and future rental cash flows and future sales proceeds from the property. The issuance was secured by the transfer of the property to the SPV. The building was leased back by DBS Land for 10 years, which meant that a well-defined cash flow stream supported the issue.³⁰⁷

Transaction Structure

Visor Ltd. – the SPV created by DBS Land launched a S\$193 million bond-cum-preference share issue, setting aside S\$20 million worth of senior bonds for retail investors in Singapore. This was a new feature to the transaction structure that was used in the two previous transactions. It led to a diversification of the investor base. The S\$105 million in non-retail senior bonds and S\$68 million in junior bonds were also placed out to investors within Singapore. Additionally every 10,000 bonds taken up came with non-detachable preference shares.³⁰⁸

The junior bonds were subordinated to the senior bonds. The structure was chosen in such a way that the senior bonds would still have been fully covered, even if the property value had fallen to S\$125 million.³⁰⁹

DBS Land – the investor in the junior bonds – retained an option to buy back the building at a later stage (between year 4 and year 10). Moreover the developer also gave the guarantee that it would buy back the building at a predefined price and pay off all the bonds at the end of the 10 year period in the event that the building was not sold to a third party. Hence, DBS Land de facto granted a put option to the investors. At the times this was a new feature, but it

³⁰⁶ Cf. Anonymous (1999j).

³⁰⁷ Cf. Anonymous (1999g).

³⁰⁸ Cf. Keng (1999).

³⁰⁹ Cf. Anonymous (1999i).

was a yet another step in developing a standardized structure for the Singapore market.³¹⁰

Motives

The prime motive was surely a stronger orientation towards an asset-light approach – the company wanted to **lighten its balance sheet** and **channel its capital to development properties** instead of getting stuck in holding real estate. Therefore DBS Land disinvested low-yielding prime property and worked on its balance sheet by using the proceeds to lower the leverage ratio. By doing that DBS Land **took advantage of unique accounting rules** that allowed the company to retain part of the junior tranche.³¹¹

Apart from the two prime reasons another motive was to diversify the investor base:

“We believe that retail investors should be given an opportunity to subscribe for these bonds, ... this is the first time that retail investors are given an opportunity to buy into a premium office building in Singapore.”³¹²

Silverlac Investment (Clearwater Development)³¹³

Originator/Borrower

Whereas previous Asset-Securitisation exercises involved the issue of bonds that were backed by investment properties and secured directly by a physical asset (an office building), Pidemco Land became the first Singapore property developer to securitise future proceeds from condominium sales of a residential project development (August 1999).³¹⁴ Pidemco Land that after the merger with DBS Land is now called CapitaLand was a property developer with ties to the

³¹⁰ Cf. DBS Bank (1999b), p. 7.

³¹¹ Cf. Anonymous (2003), Interview 1, p. 554.

³¹² Eric Ang, Managing Director and Head of Capital Markets, DBS Bank. Cf. Anonymous (1999k).

³¹³ Cf. Ho (2003), Interview 6, p. 554; Anonymous (1999n); Chew (1999); Chu (1999a); Pidemco Land (1999); Tan (1999); Tempkin and Chu (1999).

³¹⁴ Cf. Pidemco Land (1999).

Singapore government. Hence – as in the case of Neptune Orient Lines and DBS Land – Pidemco Land was a government-linked corporation (GLC).³¹⁵

Asset

The assets that were securitised in this development deal were future sales proceeds in the form of progress payments from a well-received condominium project, a development called “The Clearwater”.³¹⁶ Progress payments are instalments that homeowners pay in until construction of the building is completed.³¹⁷ The proceeds of the bond issue were used to refinance the land costs of the development and the construction costs of the 420-unit condominium project, which was at the time of the transaction 95% sold.³¹⁸

Transaction Structure

Tokyo-Mitsubishi International (Singapore) was the arranger and innovator in this first transaction of its kind. The bank set up a special purpose corporation wholly owned by Pidemco – called Silverlac Investments – that issued S\$100 m of three-year, 4.75% fixed-rate bonds, which were 30% oversubscribed – this underlined the great interest of investors in new investment alternatives. The deal was placed on-shore with local corporations and some foreign companies based in Singapore. The unrated deal was solely sold to domestic investors, because they took comfort from the fact that the bonds were fully secured by consumer-originated receivables (progress payments). Moreover, Pidemco guaranteed to meet cost overruns during development and insured that it would receive its Temporary Occupation Permit by mid-2002.³¹⁹ Hence, local investors liked the innovation and the quality of the structure. They were content with the yield and understood the cash flow and security behind the transaction. The transaction structure was the first of a series of residential-securitised bond

³¹⁵ Cf. Chu (1999a).

³¹⁶ Cf. Ho (2003), Interview 6, p. 554; Chew (1999).

³¹⁷ For a description of how the process works, confer Ho (2003), Interview 6, p. 554.

³¹⁸ Cf. Tan (1999).

³¹⁹ Cf. Chew (1999).

issues, which were done in the same way subsequently to the Silverlac Securitisation.³²⁰

Since Asset-Securitisation in Singapore at the time was still very new and only a few property-backed transactions had been completed, there were structural issues. The key legal and structural requirements in a Securitisation are that the SPV that issues the bonds is bankruptcy-remote and independent from the borrower/originator. This is normally incorporated into such deals to protect investors and issuers. The fact that Silverlac was a wholly owned subsidiary of the originator indicates that Singapore's Real Estate Securitisation market was then still evolving.³²¹

*"Even though this is not a full-blown Securitisation, it's still a first step in the development of Singapore's market. It may have also achieved the same objectives of balance sheet management and cost of financing for the Originator/Borrower."*³²²

Motives

The transaction was a new form of **innovative financing** and followed three main motives: It **freed up credit capacity** to the developer's land bank, it gave the company more **control over its liabilities** compared to bank loans and it **diversified the lending base** – the capital markets offer more depth.³²³

Apart from freeing up its debt capacity and allowing the group to buy more land for its landbank, Pidemco had been trying to match its assets to liabilities better, especially for its medium-term residential projects. Off-balance sheet was also a motive; however, it was not possible, yet – there was no impact on Pidemco's gearing because Silverlac was owned by the group and therefore its debt was still on the group's balance sheet. The main reason for owning the issuing SPV was that the market was not familiar with the structure at this early stage.³²⁴

³²⁰ Cf. Pidemco Land (1999).

³²¹ Cf. Tan (1999).

³²² Christopher Chau, director of international structured finance, Fitch Ratings, Hong Kong. Cf. Tempkin and Chu (1999).

³²³ Cf. Ho (2003), Interview 6, p. 554.

³²⁴ Cf. Chew (1999).

268 Orchard Road:³²⁵*Originator/Borrower*

The originator in this deal – as in the Robinson Point transaction – was the government linked real estate developer DBS Land (today CapitaLand). With its second transaction of the year (September 1999) the company manifested its position to be the pioneer in Real Estate Securitisation in Singapore. DBS Bank also manifested its position as a market leader in arranging Asset-Securitisation transactions.³²⁶

Asset

The asset – as in the previous transaction – was an office building. The interest and principle on the issued bonds were supported by rental cash flows and future sales proceeds from DBS Land's 20-storey freehold office block at 268 Orchard Road, formerly known as Yen San Building.³²⁷ The block was valued at S\$1,330 per square foot, based on its net lettable space of 131,600 sq ft.³²⁸

Transaction Structure

Under this deal, the same semi-standardized structure as in earlier deals of 1999 was utilized. Baronet Ltd – the SPV – bought the freehold Orchard Road building from DBS Land. It funded the purchase by issuing S\$184 m worth of 10-year fixed rate bonds underwritten by DBS Bank. In exchange DBS Land signed a 10-year leaseback agreement. This assured all bondholders well-defined and stable cash flow streams over the course of the transaction. In exchange the bondholders granted DBS Land an option to repurchase the building at a discount to market value between year 4 and year 10. This was subject to a minimum of the original purchase price of S\$184 m. On the other hand, Baronet has an option to put the building back to DBS Land at the end of the 10th year to the benefit of the bondholders.³²⁹

³²⁵ Cf. Ooi (2003), Interview 4, p. 554; Sing (2003), Interview 5, p. 554; Anonymous (1999d); Chu (1999d), p. 5; DBS Bank (1999c), p. 1; Elias (1999); Rashiwala (1999c).

³²⁶ Cf. Montague-Pollock (2001).

³²⁷ Cf. Ooi (2003), Interview 4, p. 554; Elias (1999).

³²⁸ Cf. Rashiwala (1999c).

³²⁹ Cf. DBS Bank (1999c), p. 7; Elias (1999).

Motives

The Securitisation programme formed part of DBS Land's continuing restructuring strategy to deemphasise its investment in office buildings. The primary motives for using Asset-Securitisation were to refinance borrowings and to use prime assets to help **improve their balance sheet** and **bring their gearing ratio down**. At the time Securitisation offered several advantages over traditional bank refinancing. For one, as the asset was considered "sold", the company could **take it off its balance sheet** and retire whatever debts are incurred for the property. As a result, the company's borrowings are reduced and, correspondingly, its gearing ratio. On top of this, if the company subscribed for the bonds, these were treated as an asset in its books - thus improving its net tangible assets position. This situation adhered until the regulatory instances took a new view as will be described in a later part.³³⁰

Tampines Centre.³³¹

Originator/Borrower

After being the arranger for five out of the first six transactions, DBS Bank in late 1999 (November) became an originator itself. DBS Bank is a publicly traded, but Government-Linked Corporation.³³²

Asset

The asset was DBS Tampines Centre, a commercial and retail building next to Tampines MRT station. The issuance was supported by were rental cash flows and future sales proceeds from the property, as in the previous transactions. DBS Tampines Centre had a 99-year lease, which started from 1990, and it has a lettable floor area of 177,500 sq ft. The transaction was carried out at a price of S\$1,014 per sq ft.³³³

Transaction Structure

³³⁰ Cf. Rashiwala (1999c).

³³¹ Cf. Anonymous (1999o); Eng (1999).

³³² Cf. Anonymous (1999o).

³³³ Cf. Eng (1999).

DBS Bank sold the building at S\$180 m to a special purpose vehicle called Tampines. The vehicle then issued S\$180 m worth of seven-year fixed rate bonds together with 18,000 preference shares for the purchase. The preference shares guaranteed the investors a participation in the upside of the property in case of rising property markets or the appreciation of the building. Hence, they would benefit in case the building was sold during the course of the transaction or at maturity. The building was leased back to DBS Bank on a seven-year agreement. The bonds, which were secured by the building, were issued in two classes – S\$108 m senior bonds and S\$72 m junior bonds. Out of the senior bonds, S\$20 million were offered to retail investors. The senior bonds are offered at par with a coupon of 5.625 %. For the occasion that bondholders wished to cash out earlier if property market conditions declined, an option of early redemption was incorporated (put option) from the beginning of the sixth year. Opposite to other earlier transactions, DBS Bank did without a call option.³³⁴

Motives

In late 1999, DBS Bank had for the first time turned to securitising property assets as part of its plan to **focus on core banking and financial services**. It was clearly a move in line with the bank's intention to **divest non-core assets**. The primary motive was hence to monetize on the asset and to use Asset-Securitisation as a divestment tool.³³⁵

Six Battery Road:³³⁶

Originator/Borrower

Being the strongest originator in 1999, developer DBS Land (today CapitaLand) was also the originator in the largest Sing-Dollar corporate bond issue to be offered in Singapore in 1999 (November). The Government-Linked Corporation sold 6 Battery Road for S\$878 m in an Asset-Securitisation. It was the third

³³⁴ Cf. Eng (1999).

³³⁵ Cf. Eng (1999).

³³⁶ Cf. Sing (2003), Interview 5, p. 554; Anonymous (1999f); Anonymous (1999o); DBS Bank (1999a), p. 1; Rashiwala (1999b).

office building to be divested by DBS Land this way, after Robinson Point and 268 Orchard Road.³³⁷

Asset

The asset – again – was an office building supported by predefined rental cash flows and a future sale proceeds. The office building that was formerly known as Stanchart Building and is now known as 6 Battery Road. It is a 42-storey trophy office building at Raffles Place with a total lettable space of 45,033 square metres.³³⁸

Transaction Structure

DBS Land sold Six Battery Road office tower for S\$878 m. The transaction was funded by a special purpose vehicle through the issuance of 10-year fixed rate bonds that had preference shares attached to them. Each \$10,000 denomination had one preference share attached for the sole purpose of distributing any upside in the dividend, which might arise from potential gains when the building would be sold. The bonds, arranged and underwritten by DBS Bank, was made up of \$550 million of senior bonds at an annual coupon rate of 6% and \$328 million of junior bonds at 6.5% a year.³³⁹

As in the earlier transactions, retail investors were also given the opportunity to participate.³⁴⁰ The remaining senior bonds were placed out to institutional investors. The entire tranche of the riskier junior bonds that had call options attached to them was taken up by DBS Land. All bonds were listed on the Singapore Exchange.³⁴¹

Motives

The main motives were **balance sheet management**, **asset monetization** and **diversification of funding sources**. DBS Land's striving can be best described by DBS Land senior manager Christopher Tang: "The move is in line with the

³³⁷ Cf. Anonymous (1999o).

³³⁸ Cf. Rashiwala (1999b).

³³⁹ Cf. DBS Bank (1999a), p. 7.

³⁴⁰ Cf. Sing (2003), Interview 5, p. 554.

³⁴¹ Cf. Anonymous (1999f).

group's decision to deemphasise our investment in office buildings, re-invest in higher yielding assets and businesses, and deliver higher shareholders' returns".³⁴²

Wilby Residence:³⁴³

Originator/Borrower

Publicly listed car distributor Tan Chong International Ltd out of Hong Kong was the third non-real estate company (i.e. corporate) after Neptune Orient Lines and DBS Bank to use Real Estate Securitisation as a means of divesting its real estate assets in Singapore. It was the only deal in 2000 (September). This was a sign that the market – after the high issuance volume of 1999 – was in an orientation phase.³⁴⁴

Asset

Tan Chong sold 180 out of 181 units at its freehold luxury condominium Wilby Residence in Singapore for S\$146 m in order to realise its gains on the investment. Wilby Residence is a project that was completed by Tan Chong in September 1997 on a site that used to be a parking deck for the distributor of Subaru and Nissan cars.³⁴⁵ The sale was refinanced by the means of Asset Securitisation. The price worked out to S\$730 per square foot for the completed condo, which was at the lower end of market expectations for an en-bloc disposal.³⁴⁶

Transaction Structure

Overseas Union Bank set up the structure for the deal under which Hong Kong-listed Tan Chong's wholly owned subsidiary Tan Chong Realty Wilby for S\$146m to Brizay Property Pte Ltd, a Singapore incorporated special purpose vehicle. Tan Chong committed itself to subscribing for the junior tranche of the bonds. The group also took on a call option to buy back the property between

³⁴² Cf. Anonymous (1999o).

³⁴³ Cf. Ooi (2003), Interview 4, p. 554; Anonymous (2000b); Anonymous (2004d); Chong (2004); Rashiwala (2000a); Rashiwala (2000b); Rashiwala (2001).

³⁴⁴ Cf. Anonymous (2000b).

³⁴⁵ Cf. Rashiwala (2000a).

year 4 and year 10. However, a put option by the bondholders to sell the property back to Tan Chong was not granted.³⁴⁷

Motives

Under Singapore laws Tan Chong **had to dispose of the property** by 15 September 2000. The reason was that the group was deemed a foreign party and such an entity had to dispose of property developments within two years of completing its projects. Hence, the primary motive for the company was to sell the building, but to keep a hand on it, since the property was located directly beside the company's car showroom. This is the reason why the group insisted on an **option to buy back the property at a later stage**.³⁴⁸

The second reason for Real Estate Securitisation was **balance sheet management**. Tan Chong International made a profit of S\$53.4 m. The proceeds were used for developing the group's existing landbank and for general working capital. The property was removed from Tan Chong's balance sheet. Asset-Securitisation at the time offered the highest price in a sluggish real estate market.³⁴⁹

In 2004, Tan Chong wrapped up the transaction, by making use of its call option. It paid S\$185 m for the residential property, an amount nearly 27 percent higher than the S\$146 m that the company raised in 2000. The reason why Tan Chong exercised the option was that it wanted to redevelop its car showroom together with the residential property. Moreover the company bought back the property in anticipation of further improvement and appreciation in the Singapore property market.³⁵⁰

Raffles City:³⁵¹

Originator/Borrower

³⁴⁶ Cf. Anonymous (2000b).

³⁴⁷ Cf. Rashiwala (2000b).

³⁴⁸ Cf. Rashiwala (2000a).

³⁴⁹ Cf. Rashiwala (2000b).

³⁵⁰ Cf. Anonymous (2004d).

³⁵¹ Cf. Ooi (2003), Interview 4, p. 554; Cameron (2001a); Cameron (2001b); Ng (2001); Rashiwala (2000c); Yin (2001).

Raffles City was not only the largest commercial property Asset-Securitisation in 2001, but also the first deal in a new era of Real Estate Securitisations in Singapore. Raffles Holding – a subsidiary of CapitaLand’s hotel company – originated the deal that was underwritten and placed by DBS Bank in June 2001, about 1 year after the last Real Estate Securitisation deal came to the market.³⁵²

Asset

The asset that was securitised was a 55% share in the Raffles City complex. The bonds were supported by the property’s cash flows from rental income and future sales proceeds that originated out of property. The purchase price was based on a S\$1.79 bn valuation for the whole complex.³⁵³ The shares in Raffles City Pte Ltd, which owns the Raffles City complex, secured the transaction. Raffles City, which was owned and developed by Raffles Holding, is a mixed-use development that incorporates a shopping complex, hotels and Raffles Holding’s Headquarter. The Raffles City complex is centred around Singapore’s highest hotel: the 73-storey Westin Stamford Hotel.³⁵⁴

Transaction Structure

“This is the closest it comes to a true Securitisation.”³⁵⁵

The structure was deemed to be the first “real” Real Estate Securitisation in Singapore and was different from the earlier structures arranged by DBS Land. At first sight the Raffles Holding deal did not look different from previous structures. The originator, which previously owned 100 % of the Raffles City complex sold 55 % of its shares in the property to a special purpose vehicle called Tincel Ltd. Tincel, issued S\$984.5 m of senior bonds and junior subordinated 10-year bonds, and 29,550 preference shares. The Interest rate was 5 % for the senior bonds and 7.4 % for the junior bonds per annum. The bonds were serviced by a current yield of around 5.74% from existing Raffles City leases. About 70% of the issue was senior bonds, including \$50 million for

³⁵² Cf. Rashiwala (2000c).

³⁵³ Cf. Ng (2001).

³⁵⁴ Cf. Cameron (2001a).

retail investors. The other 30%, or \$295.5 million were junior bonds, which have a higher coupon of 7.4% because of their higher risk exposure. Every \$10,000 of junior bonds came with one preference share, which is entitled to excess profits earned by Tincel. Both the senior and junior bonds were listed on the Singapore Exchange for which DBS Bank committed itself to provide the liquidity for.³⁵⁶

The difference in this case was that the bond investors did not have a put option to sell the junior bonds back to Raffles on maturity and Raffles did not have a call option to collapse the structure. Hence, this was an outright sale for Raffles Holding. The bonds were placed with four to five cornerstone investors.³⁵⁷

The interest rate on the junior bonds was part of the reason why this Securitisation was different from the previous ones. In other Securitisations one found that the property yields were much lower as in the case of Raffles, and after having paid the senior bonds the structure ended up with a yield that would not be effective enough to attract junior bondholders. So in most cases this was the major reason why the original owner, i.e. the originator had to buy back the junior bonds. Apart from that in the first transactions the junior bonds were supplemented with call options on the properties, so that the original owner had the option to collapse the structure, when they wanted to have the property back. The primary intention there was to park the property instead of divesting it. In the case of Raffles Holding the divestment and the concentration on core business were the primary drivers for not choosing an earlier structure.

Motives

Raffles was seeking to become a pure-player in hotel business. So the main goal for Raffles Holdings was to **divest part of its prime real estate** in order to generate liquidity for acquiring businesses in its core activity field. With the divestment proceeds from Raffles City, Raffles Holding funded its S\$439 m purchase of the Swissotel chain.³⁵⁸ Overall the Securitisation exercise gave

³⁵⁵ Eric Ang managing director and joint head of investment banking, DBS Bank. Cf. Ng (2001).

³⁵⁶ Cf. Ng (2001).

³⁵⁷ Cf. Chow (2003).

³⁵⁸ Cf. Cameron (2001b).

Raffles an extraordinary gain of S\$350m that it also partly used to cut its gearing. The company repaid loans and improved the working capital. So **balance sheet management** was also a prime motive.³⁵⁹

Peridot Investments.³⁶⁰

Originator/Borrower

CapitaLand's residential development subsidiary called CapitaLand Residential was the borrower in the second residential Real Estate Securitisation deal in Singapore. This deal also stood for the beginning of a new era – it was the first rated deal in Singapore, it was the first transaction arranged by HypoVereinsbank's Singapore branch and it was the first time that bonds were not solely placed on-shore, but with international investors outside of Singapore.³⁶¹

Asset

The assets securitised by CapitaLand were development receivables in the form of progress payments and future sales proceeds generated by three residential development projects: The Loft, Palm Grove and Sunhaven. The transaction is secured by mortgage loans that are collateralized by the funds available in the three project accounts from the progress payments generated by the currently sold units and future progress payments from unsold units. At the initiation of the transaction 75% of total units had been taken up, which translated into \$346 million in revenue.³⁶²

Transaction Structure

Through its special purpose vehicle Peridot Investments CapitaLand Residential issued a S\$200 m transaction of six-year progress-payment securities bond. The Fitch-rated fixed-rate bonds were the first rated bonds backed by money collected through progress payments on units in uncompleted housing projects in Singapore (the Clearwater transaction was not rated and

³⁵⁹ Cf. Ng (2001).

³⁶⁰ Cf. Chong (2001); Park and Kearns (2001), p. 1.

³⁶¹ Cf. Park and Kearns (2001), p. 2.

³⁶² Cf. Park and Kearns (2001), p. 1.

solely placed on-shore). Progress payments are the typical method of payment for uncompleted homes in Singapore, and the clearly defined rules and regulations provided protection comfortable for investors.³⁶³

The deal was also the first deal that had a typical Securitisation sub-ordination structure: divided into four tranches, \$160 million of the bonds had 'AAA' (3.71%) – the remaining tranches were rated 'AA' (3.83%), A (4.09%) and 'BBB' (4.79%) respectively.³⁶⁴

Motives

Primarily the issue allowed the replacement of projects, making it possible to capitalise on prevailing low interest rates to tap long-term funds. This leads to the two prevailing motives in such Securitisations: **low interest rate** and **long-term funding** – sourcing funds through the bond issue saved CapitaLand 50-70 basis points, or S\$1 million, a year over the maturity of the deal, compared with traditional bank finance. Moreover **balance sheet management** was a motive: proceeds from the issue were used to refinance debt and strengthen the company's land bank. An additional benefit became the fact that half of the bonds were taken up by international funds. So a **diversification of the investor base** was also a motive in this transaction. Loan-to-Value was not an issue in this deal, since the bond raised only S\$200m compared to S\$500 m in revenues once the project was 100% sold.³⁶⁵

Wisma Atria:³⁶⁶

Originator/Borrower

The Seller of Wisma Atria shopping centre is Wisma Development Pte Ltd., a subsidiary of Al Khaleej, which is the Singapore investment arm of Emirates Bank International of Dubai. The speciality of this deal was that the transaction had an additional sponsor: ERGO – a German insurance company that might

³⁶³ At the time a seven-year AAA-rated bond issue by the Singapore government yielded between 3.17 per cent and 3.19 per cent. Cf. Chong (2001).

³⁶⁴ Cf. Park and Kearns (2001), p. 2.

³⁶⁵ Cf. Chong (2001).

³⁶⁶ Cf. Anonymous (2002c); Chong (2002b); Chow (2004); Rashiwala (2002a); Rashiwala (2002f); Rashiwala (2002g).

eventually take over the prime shopping mall after the wrap up of the transaction. This transaction was hence a first time transaction, because it functioned as a disinvestment vehicle for the former owners of the property as well as an acquisition financing for the sponsor. Consequently, the transaction was deemed to be a true (off-balance sheet) Asset-Securitisation. It was arranged and managed by United Overseas Bank (UOB) Asia.³⁶⁷

Asset

“It was Wisma's strong rental yields that made it an ideal candidate for Asset-Securitisation, despite the slight downturn in the property market.”³⁶⁸

The asset underlying the transaction was the Wisma Atria shopping mall a 224,200 sq ft of strata-titled retail and office space that is situated along Orchard Road, Singapore's main shopping belt.³⁶⁹ The Wisma space involved 99,600 sq ft of offices and 124,630 sq ft of specialty shops. The Wisma's site had a remaining ground lease of 61 years at the time of the transaction and the property was sold at a high net rental yield of about 8.5%.³⁷⁰ Under the S\$451 m Asset-Securitisation the mall was valued at about S\$2,911 per square foot, or a total of S\$366 m, and the office tower at about \$850 per square foot, or S\$85 m.³⁷¹

Transaction Structure

Under the deal, Wisma Development sold the space to special-purpose vehicle Upperton Holdings' subsidiary Aspinden Holdings for some \$S451 m. Upperton in turn issued \$451 million of five-year, fixed-rate unlisted bonds, in three classes to fund the acquisition. These were S\$288 m of senior bonds with a 4.94 % coupon; S\$50 m of 7 % junior A bonds; and S\$113 m of 8.85 % junior B

³⁶⁷ Cf. Anonymous (2002c).

³⁶⁸ Michael Sng, Managing director, UOB Asia. Cf. Anonymous (2002c).

³⁶⁹ Cf. Anonymous (2002c).

³⁷⁰ The equivalent yield for a similar mall with a full 99-year lease would be about 6.5 to 7 per cent. Cf. Rashwala (2002g).

³⁷¹ Cf. Rashwala (2002a).

bonds. Insurance companies, financial institutions, asset managers, cash-rich corporations and others subscribed for the senior and junior A tranches.³⁷²

The speciality in this deal was that one group of investors – ERGO and its associates – sponsored the transaction and held the junior B bonds. These bonds were stapled with preference shares with a conversion option that would allow ERGO and its partners to own 100 % of the Wisma space at the end of their five-year term. In exchange, ERGO and its fellow junior B bond holders would have to redeem the two other classes of bonds - senior and junior A - issued under the Securitisation. The Securitisation deal was not rated, as it was a private placement.³⁷³

Motives

The seller's main objective was to **sell the asset** and to achieve the **highest price possible**. The transaction was a clear disinvestment – the company wanted to monetize on its asset. Wisma Development completely sold its stake in the asset. It did not buy back a single bond and it did not guarantee rental income on the asset. Neither was there any option requiring it to buy back the asset later. The transaction was a true sale of the whole asset to the benefit of ERGO that used the Securitisation vehicle as an innovative **off-balance sheet acquisition vehicle**.³⁷⁴

Jasmine Investment Corporation:³⁷⁵

Originator/Borrower

The Jasmine deal that was originated by Keppel Land Realty Pte Ltd and Sherwood Development Pte Ltd – both are subsidiaries of government linked Singapore developer Keppel Land Limited. Being a Government-Linked Corporation, Keppel Land became yet another innovator in Asset-Securitisation in Singapore. The transaction was another first timer deal: first time that Keppel Land initiated a deal, first time that bonds were denominated in a foreign

³⁷² Cf. Rashiwala (2002f).

³⁷³ Cf. Anonymous (2002c).

³⁷⁴ Cf. Rashiwala (2002g).

³⁷⁵ Cf. Anonymous (2002a); Anonymous (2002m); Cheng (2002); Chong (2002a); Park and McCarthy (2002).

currency and first time that all three rating agencies (Moody's, Standard & Poor's and Fitch Ratings) rated the transaction. The deal was arranged by HypoVereinsbank's Singapore Branch.

Asset

The notes were backed by property receivables from sale and purchase agreements (the assets) on 455 apartments in three condominiums in Singapore: Amaranda Gardens, Butterworth 8, and The Edgewater.³⁷⁶ The three projects together have a total development size of 458 residential units. Most of the condominiums were sold before the transaction was initiated and only 3 units remained unsold at the closing. Under the deferred payment scheme, buyers of the sold units have paid 10% of the purchase price as deposit to the developers. The underlying receivables therefore consist of 90% of unpaid purchase price of the sold units and the full purchase price of the unsold units. The total value of the underlying receivables was expected to be S\$355.7 million, which was the primary source of principal repayment to the note holders.³⁷⁷

Transaction Structure

Jasmine Investment Corporation Ltd. issued three classes of notes with total issuance proceeds of US\$144 m from the Class A notes and S\$45 m from the Class B and Class C notes. After converting the US\$144 m into Singapore Dollars, the total issuance amount is equal to S\$302 m. The notes had a legal maturity of June 2007 and an expected maturity of December 2005. The 'AAA' US dollar notes were priced at 33bp over Libor. A potential currency mismatch between the underlying Singapore Dollars denominated receivables and the US Dollars denominated Class A Notes was mitigated by a currency swap with HVB Singapore. The Singapore dollar tranches pay fixed rate coupons with launch spreads of 58bp on the double-A tranche and 86bp at the single-A level. The average yield is 2.8%.³⁷⁸

³⁷⁶ Cf. Anonymous (2002m).

³⁷⁷ Cf. Anonymous (2002a).

³⁷⁸ Cf. Park and McCarthy (2002), p. 3.

The issuer used the note issuance proceeds to purchase the underlying receivables from HVB Singapore which in turn acquired the sale proceeds receivables generated from the sales of the residential units from the two property developers.³⁷⁹ In Singapore, developers are entitled to receive cash while properties are being built. The developer receives 10% of the purchase price initially from future occupants, a further 75% once a temporary occupation permit (TOP) is obtained, and the remainder as the project reaches completion.³⁸⁰ This transaction offered bondholders greater certainty, because under the deal money had been committed for almost all of the future apartments. If construction costs would overrun by up to 12%, Keppel were obliged to cover this expense. The arranger also provided a S\$66 m construction guarantee that covers up to 65% of any construction costs that exceed the budget.³⁸¹

Motives

The primary motives for Keppel Land were clearly the wish to **liquefy the assets** and thus to get **cheap construction financing**. Another strong reason for this transaction was the **diversification of the funding base** – a big part of the transaction was denominated in US \$.³⁸²

Compass Point Shopping Centre:³⁸³

Originator/Borrower

In November 2002, Beverage, property and publishing company Fraser & Neave (F&N) sold its retail property Compass Point Shopping Centre at Sengkang in a Real Estate Securitisation. The arranger in this deal – which is typical for the applied structure – was DBS Bank.³⁸⁴

Asset

³⁷⁹ Cf. Anonymous (2002a).

³⁸⁰ Cf. Chong (2002a).

³⁸¹ Cf. Anonymous (2002m).

³⁸² Cf. Cheng (2002), p. 7.

³⁸³ Cf. Anonymous (2002b); Anonymous (2002d); Rashiwala (2002c); Tan (2002).

³⁸⁴ Cf. Anonymous (2002b).

The asset was comprised of a shopping centre property, which was sold to an SPV for S\$335 m. The rental income and future sales proceeds to pay off the bonds were derived and secured by the Compass Point Shopping mall. The property has 270,000 square feet, which works out to S\$1,243 per square foot of net lettable area, or a net yield of about 6.7% on the property.³⁸⁵

Transaction Structure

Under the transaction the SPV Sengkang Mall Ltd. issued two tranches of 10-year bonds: S\$201 m in senior bonds and S\$134 m in junior bonds with attached preference shares that carried annual coupons of 4.88 % and 8 % respectively. In this subordinate structure senior bonds had priority over junior bonds in principal and coupon payments. F&N's wholly owned unit Centrepont Properties and insurance company Prudential UK subscribed for 45% and 51.12% respectively of the \$134 million junior bonds.³⁸⁶

In this typical DBS Bank structure junior bondholders do not only receive a higher annual coupon of 8% but also get to keep the full upside of any capital appreciation when the property is eventually sold (through the means of preference shares). They will also pocket any excess rental income after all the bondholders have been given their coupon payments – they de facto hold the equity position of the property in a bond structure. Special to this structure was that the majority junior bondholder, Prudential UK, had been given the right to exercise an option to purchase the Compass Point mall after the third year. Whereas there were no options for Centrepont (the other junior bondholder) or any other F&N entities to buy back the mall. F&N/Centrepont was also not guaranteeing Compass Point's rental income. Hence, this was a true sale of the shopping centre asset and it can be viewed as a sale to the sponsor of the transaction Prudential UK, which was using Asset-Securitisation as an innovative acquisition financing.³⁸⁷

Motives

³⁸⁵ Cf. Anonymous (2002d).

³⁸⁶ Cf. Rashiwala (2002c).

³⁸⁷ Cf. Rashiwala (2002c).

“This fits [the company’s] strategy of realising development gains at the right time while retaining management control.”³⁸⁸

So the prime motive of the deal was to **divest the asset** and **improve the balance sheet**, while following the group's strategy of placing greater emphasis on asset-light, fee-based businesses and improving asset productivity.³⁸⁹

Fraser & Neave also considered floating the mall in a Real Estate Investment Trust (REIT), floating a trust would have involved a few more of F&N's shopping centres and released more funds that F&N would have had to invest into new investments that would have needed to yield higher returns than what it was achieving by leaving the money in the malls. Apart from that a retail property trust would have meant for F&N/Centrepoint to take a haircut on current values of some of the other malls to ensure attractive yields for potential unit holders. This was and still is a general problem for all property holders in Singapore – the values are too high, the yields too low and nobody wants to take a hit.³⁹⁰

Capital Square:³⁹¹

Originator/Borrower

Capital Square was Keppel Land's second Real Estate Securitisation deal and the company's first deal incorporating office space (November 2002). Keppel Land's subsidiary Capital Square Pte Ltd, which owned Capital Square, sold the property at S\$505 m or a nearly 6% yield to a special purpose vehicle set up by DBS Bank. The speciality of this deal was once again that the transaction had an additional sponsor: ERGO – the German insurance company that had already been a sponsor in the Wisma Atria deal took on the same position in this transaction. DBS Bank was the arranger and manager of the issue in this deal that used the typical DBS Bank structure.

Asset

³⁸⁸ Han Cheng Fong, Managing Director, Fraser & Neave. Cf. Tan (2002).

³⁸⁹ Cf. Tan (2002).

³⁹⁰ Cf. Seck (2003), Interview 3, p. 554; Rashiwala (2002c).

³⁹¹ Cf. Anonymous (2002e); Anonymous (2002f); Rashiwala (2002b); Sen (2002).

The asset was a property called Capital Square that resided on a 99-year leasehold office block in the Raffles Place area. The structure was supported by rental income and future sales proceeds originated from and backed by the property; it was secured by the real property held by the SPV to the benefit of the investors. The Property was completed in 1998 and comprises a 16-storey Grade A office building with a seven-level multi-storey car park (Capital Square One) and two blocks of conservation buildings (Capital Square Two and Capital Square Three). The Property has an outstanding tenant profile which includes major tenants like Citibank N.A., Morgan Stanley Dean Witter Asia Capital Group (Singapore) Pte and Barclays Bank PLC, and was nearly 100% occupied at closing.³⁹²

Transaction Structure

The transaction structure is similar to DBS Bank's previous arranged transaction: Compass Point. Under the deal at hand Queensley Holdings Limited, a special purpose vehicle, issued S\$505 m of 7-year bonds together with 808 preference shares for the purchase of the 100% stake in Capital Square Pte Ltd. There were two classes of bonds, S\$303 m Senior Bonds and S\$202 m Junior Bonds, together with 808 preference shares. The Junior Bonds rank below the Senior Bonds in terms of principal and interest payments.³⁹³

The Issue was structured with a number of credit enhancements, which made it superior to a normal straight bond issue. In addition to having the Property as collateral, holders of Senior Bonds also had a security buffer of 40% as they rank ahead of the Junior Bonds (subordination). The Junior Bonds were fully subscribed by Capital Plaza Holding GmbH & Co. Singapur KG, a special purpose vehicle set up by ERGO Versicherungsgruppe AG to purchase the Junior Bonds. These junior bonds were stapled with preference shares in the SPV. The bonds also had embedded options that gave ERGO the opportunity to sell the building after the third year. If the building were not sold, ERGO could refinance the senior bonds or redeem them at the end of their 7-year tenure. There was neither any option for Keppel Land or the senior bondholders to buy

³⁹² Cf. Anonymous (2002e).

³⁹³ Cf. Rashiwala (2002b).

the property back. This deal was essentially an acquisition of Capital Square by ERGO financed by an innovative Real Estate Securitisation structure.³⁹⁴

Motives

As in the case of Compass Point, the prime motive for the originator of the deal was to **divest the asset** and **improve the balance sheet**, while following the group's strategy of placing greater emphasis on asset-light, fee-based businesses and channelling the capital into developments instead of in holding real estate. The sponsor Ergo on the other hand used the Securitisation structure as an innovative **off-balance sheet acquisition vehicle**.³⁹⁵

Aragorn Investment Corporation Limited:³⁹⁶

Originator/Borrower

HypoVereinsbank (HVB) Singapore in December 2002 arranged the second international Securitisation of residential property receivables for CapitaLand Residential Limited, a residential development subsidiary of government-linked corporation CapitaLand.³⁹⁷

Asset

The transaction was a Securitisation of receivables from purchase payments from contracted buyers of condominium units of a residential project, known as 'The Waterina', located near Singapore's central business district that is due to be completed in March 2006.³⁹⁸

CapitaLand Residential Limited had sold the units of the yet-to-complete project to the individual buyers under a deferred payment scheme and is entitled to the payment from the buyers (the receivables). The developer sold its rights to the receivables to the issuer for an upfront consideration of S\$ 197.8 m and a deferred consideration of S\$69.2 m. The bonds were secured by the underlying

³⁹⁴ Cf. Sen (2002).

³⁹⁵ Cf. Anonymous (2002f).

³⁹⁶ Cf. Anonymous (2002g); Anonymous (2002i); Anonymous (2003g); Cheng and Ma (2002); Cheng and Ma (2003b).

³⁹⁷ Cf. Anonymous (2003g).

³⁹⁸ Cf. Anonymous (2002i).

deferred purchase price and progressive payment receivables from the 398-unit luxury residential project.³⁹⁹

Transaction Structure

The issuer – a special purpose vehicle called Aragorn Investment – issued two triple-A tranches of US\$28 m and US\$72 m, and two subordinated tranches of S\$10 m. The arranger HVB subscribed for the US\$28 tranche. The bonds are expected to mature in March 2005 with final maturity in March 2008.⁴⁰⁰

Of the 398 units, 338 had been sold under the deferred purchase price scheme, a further 15 under the progressive payment plan, and 45 remained unsold at closing.⁴⁰¹ The unpaid portion of the purchase price of the sold units, together with the 45 unsold units, constitute the receivables in this transaction for a total projected amount of about S\$267 million, compared to the issuance amount of S\$198m equivalent. Under the progressive payment scheme, 65% of the purchase price will be paid in instalments based on the progress of the construction, and the remaining 15% will be paid after the temporary occupation permits (TOPs) are granted. Under the deferred payment scheme, the entire remaining 90% of the purchase price will be paid on or after the date when TOPs are granted. The project's expected TOP date is set for February 2005 and the legal TOP date is set for March 2006.⁴⁰²

Motives

The two dominating motives for CapitaLand Residential to use Real Estate Securitisation as an **innovative financing instrument** were **cheaper financing** and a **diversification of funding sources**. Obviously the company also wanted to unlock the fixed value of its development and **liquefy the asset** and to **balance out its balance sheet**, but cheaper construction funding from a different source than a bank was the primary motive.⁴⁰³

³⁹⁹ Cf. Anonymous (2002g).

⁴⁰⁰ Cf. Anonymous (2002i).

⁴⁰¹ Cf. Cheng and Ma (2002), p. 2.

⁴⁰² Cf. Cheng and Ma (2003b), p. 3.

⁴⁰³ Cf. Anonymous (2002i).

Cobalt Asset Management:⁴⁰⁴*Originator/Borrower*

The Sponsor and ultimate borrower under this first 'Credit Tenant Lease' transaction in Singapore was Siemens – a German corporate. The developer of the property was M+W Zander a German developer and contractor. This first transaction in February 2003 was once again arranged and managed by HypoVereinsbank Singapore.⁴⁰⁵

Asset

The deal was backed by a long-term credit tenant lease (the asset) in eastern Singapore's Siemens Center signed by Siemens AF (SI). The bonds being issued were serviced by the corresponding lease cash flows that are secured by the credit of the parent company Siemens AG – a Aa3-rated corporate. The transaction was additionally collateralized by a mortgage over the whole property (Siemens Center).⁴⁰⁶

Transaction Structure

The issuer in this transaction was Cobalt Asset Management Ltd a special purpose and bankruptcy remote company incorporated with limited liability in Singapore. In February 2003, the issuer issued S\$45 m of fixed rate notes due June 2019 to fund the construction of the Siemens Center. Construction of the property was completed in May 2003 with the grant of the temporary occupancy permit (TOP) by Singapore's relevant authority. The practical completion was achieved on June 30, 2003. Interest payments and principal repayment of the notes largely depends on rental collections from the Siemens Center. Under the Siemens lease, the lessee rented about 82% of the floor area for 15 years. Siemens AG unconditionally and irrevocably guaranteed the lessee's payment obligations under the Siemens lease. In addition, the issuer also entered into other lease agreements with potential tenants for the remaining 18% of the floor area. In the event that the issuer defaulted under its obligations, the trustee

⁴⁰⁴ Cf. Anonymous (2003d); Anonymous (2004i); Cheng and Ma (2003a), p. 3; Murra (2003).

⁴⁰⁵ Cf. Anonymous (2003d).

⁴⁰⁶ Cf. Anonymous (2004i).

could exercise its enforcement rights and use the proceeds from liquidating the building and the other issuer's assets to pay down the notes.⁴⁰⁷

Motives

Clearly this first 'Credit Tenant Lease Securitisation' transaction was a new innovative way of financing the construction of the new Siemens Centre. Generally in a 'Credit Tenant Lease' deal, the company would sell securities backed by long-term rental income from a property in order to fund the property purchase or construction. That structure would suit a company looking to sell property it acquired to house certain operations in favour of focusing on core activities but still wants to occupy that same space.⁴⁰⁸

Siemens prime motives for such a transaction was **cheap construction financing** combined **with long-term funding** and a **high Loan-to-Value** that originated out of the long lease and the high credit of the parent company. **Balance sheet management** definitely as well as a **diversification of funding sources** also played a role.⁴⁰⁹

Silver Maple Investment Corporation:⁴¹⁰

Originator/Borrower

The borrower of this transaction launched in June 2003 was CapitaMall Trust (CMT), which was formerly known as SingMall Property Trust. CMT was Singapore's first listed real estate investment trust (REIT). The vehicle, which was launched in 2002, invests in income-producing commercial properties in Singapore and has shopping centres as a predominant focus. CMT was initiated by CapitaLand Limited to spin off its real estate assets. So CapitaLand was the ultimate sponsor of the transaction. The transaction was the first Commercial Mortgage-Backed Securities deal in Singapore. CMT borrowed the money to finance acquisitions of its first properties.⁴¹¹

⁴⁰⁷ Cf. Cheng and Ma (2003a), p. 3.

⁴⁰⁸ Cf. Anonymous (2004i).

⁴⁰⁹ Cf. Murra (2003).

⁴¹⁰ Cf. Anonymous (2003b); Anonymous (2003l); Cheng, *et al.* (2003), p. 1; Eastham (2003), p. 1.

⁴¹¹ Cf. Anonymous (2003l).

Asset

The assets underlying this transaction are loans (credit facilities) that are secured by mortgages over the acquired properties. Interest and amortization of the bonds originate out of interest and principle from the mortgage loans. As of the issue date, the borrower owned 3 commercial properties in Singapore - Junction 8 Shopping Center, Tampines Mall, and Funan-The IT Mall. The retail properties had an aggregated appraisal value of S\$935 m.⁴¹²

Transaction Structure

The issuer under this transaction was Silver Maple Investment Corporation Ltd, a special purpose company incorporated with limited liability under the laws of Singapore. The shares of the issuer were held on behalf of a charitable trust.⁴¹³

The CMBS was issued in a secured medium-term notes program, under which the issuer had entered into a credit facility agreement with the borrower, CapitaMall Trust. Under this agreement, the issuer issued notes to finance CMT's acquisition of commercial properties in Singapore and to fund CMT's routine capital expenditure and working capital requirements. Each of the series of notes issued from the MTN program matched the terms of each credit facility advanced to the borrower. Consequently, the issuer's ability to meet payment obligations to note holders derived from the borrower's ability to meet payment obligations under the credit facility agreement, which eventually depended on the rental income of the commercial properties the borrower owns and operates. Mortgages over the properties supported the credit facilities advanced by the issuer. The issuer also benefited from the assignment of the borrower's right, title and interest in the tenancy agreements, the management agreements, the insurance policies, the insurance proceeds, and rental collection accounts.⁴¹⁴

Motives

⁴¹² Cf. Anonymous (2003b).

⁴¹³ Cf. Eastham (2003), p. 3.

⁴¹⁴ Cf. Cheng, *et al.* (2003), p. 2.

The motives for choosing Asset-Securitisation as a means to finance the acquisition of the first three assets from the ultimate sponsor of the transaction – Capitaland Limited, was to get **cheap, long term funding** from capital market sources (**diversification of funding sources**).⁴¹⁵

Ngee Ann City:⁴¹⁶

Originator/Borrower

The originator of this transaction – that was very comparable to Wisma Atria and Capital Square – was Metro Holdings, a Singaporean retailing company. The reason that this transaction was similar to the two mentioned above was that Ergo Insurance Company was again sponsor in the deal and hence investor in the junior bonds. The Ngee Ann City deal in August 2003 was the last time that the typical ‘DBS Bank’ transaction structure was used. Moreover, it was the last time that DBS Bank arranged a Real Estate Securitisation.⁴¹⁷

Asset

The asset was a 27% stake in Ngee Ann City, an office and retail complex on Orchard Road. Interest and amortization on the bonds were accounted for by rental income and future sales proceeds originated from the stake. The stake was valued at S\$538 m and had an annual net income before property tax of about S\$35 m, resulting in a yield of about 5.8% after property tax.⁴¹⁸

Transaction Structure

The transaction’s special purpose vehicle, Orchard Square Capital Assets Ltd, bought Metro Holding’s stake in the mall and financed it by issuing bonds. The SPV raised S\$560.25 m through a bond and preference share issue. Orchard Square’s five-year bond issue was divided into S\$154 m secured fixed rate senior A bonds, S\$178 m secured fixed rate senior B bonds, and S\$228.25 m secured fixed rate junior bonds, together with 913 detachable redeemable

⁴¹⁵ Cf. Eastham (2003), p. 1.

⁴¹⁶ Cf. Heng (2003), Interview 7, p. 554; Anonymous (2003f); Anonymous (2003m); Rashiwala (2003a); Rashiwala (2003b).

⁴¹⁷ Cf. Heng (2003), Interview 7, p. 554.

⁴¹⁸ Cf. Rashiwala (2003b).

preference shares. Metro's subsidiary Sun Capital Assets Pte Ltd subscribed for 30 percent of the junior bonds, while the remaining 70 percent were taken up by an investment consortium led by Ergo Tru Asia Pte Ltd, a subsidiary of Ergo Insurance Germany. The junior bonds pay an interest of 7.5% per annum.⁴¹⁹

Motives

The reason for Metro Holdings to **divest** its 27-per-cent stake in Ngee Ann City by the means of Asset-Securitisation was **balance sheet management**. After anchor tenant Takashimaya had decided not buy Metro, the holding was forced to lower its gearing.⁴²⁰ Once again this transaction was a true sale of the asset to the benefit of Ergo that used the Securitisation vehicle as an innovative **off-balance sheet acquisition vehicle**.⁴²¹

Riviera Investment:⁴²²

Originator/Borrower

The last Real Estate Securitisation transaction of 2003 (September) was the first deal arranged by Standard Chartered Bank. It incorporated a Securitisation of pre-sold apartments for Centrepont Properties Ltd – a subsidiary of Fraser & Neave – to refinance its condominium development project: Cote d'Azur.⁴²³

Asset

The assets securitised in this case were receivables from sales proceeds of a 612 unit residential development in the eastern part of Singapore. The project was launched in 2002 and is scheduled for completion in December 2005. At closing 593 units (97%) had been sold, the majority of purchasers had already paid the required 20% of the balance before completion. The remaining

⁴¹⁹ Cf. Rashiwala (2003a).

⁴²⁰ Cf. Anonymous (2003f).

⁴²¹ Cf. Anonymous (2003m).

⁴²² Anonymous (2003n); Anonymous (2003o); Ho and McCarthy (2003), p. 1; Rashiwala (2003c).

⁴²³ Cf. Anonymous (2003o).

progress payments will be paid only when the project is completed in early 2005 (deferred payment scheme).⁴²⁴

Centrepont sold the project at an average of S\$595 per square foot. Based on the saleable area of 788,235 sq ft, the total contracts were worth S\$469m (US\$279m). The total cost of the project was estimated at S\$104.7m and the cost to complete was S\$76m.⁴²⁵

Transaction Structure

Riviera Investment Ltd., a special purpose vehicle (SPV) incorporated under the laws of Singapore set up for the Securitisation, issued US\$162 million of bonds at par and lent the money raised to Centrepont, which used it to refinance the acquisition of the condo site and pay for the project's construction. The SPV retained a portion of proceeds to pay the coupon to bond holders.⁴²⁶

The deal was comprised of one single tranche of triple-A rated three-year bullet notes, priced at 30 to 35 basis points above the three-month London Inter Bank Offered Rate (Libor).⁴²⁷ The bonds were rated by Fitch Ratings. The rating reflected the mitigation of the construction risk through the completion guarantee, sufficient cash flow generated from payments made by the buyers of the condominium units, and the sound capital and legal structure. The rating addressed the timely payment of interest and the ultimate repayment of principal of the bonds by final legal maturity in December 2006.⁴²⁸

Motives

*“Securitisation enables the company to bring forward cash flows from the deferred payment scheme and is expected to reduce the financing costs for the project in view of lower interest rates... This is part of the company's ongoing financial management efforts to improve profitability.”*⁴²⁹

⁴²⁴ Cf. Rashiwala (2003c).

⁴²⁵ Cf. Anonymous (2003n).

⁴²⁶ Cf. Rashiwala (2003c).

⁴²⁷ Cf. Anonymous (2003n).

⁴²⁸ Cf. Ho and McCarthy (2003), p. 1.

⁴²⁹ Rashiwala (2003c).

Fraser & Neave took advantage of low interest rates and refinanced its development of Cote d'Azur condo by securitising its future sales proceeds. The move allowed the company to bring forward cash flows, to lower project's financing costs and to improve its balance sheet.

CapitaRetail Singapore:⁴³⁰

Originator/Borrower

In February 2004, BNP Paribas and Oversea-Chinese Banking Corp. arranged the second CMBS deal in Singapore, which was the first deal to have a €-denominated tranche.⁴³¹ The originator of the Securitisation was – once again – CapitaLand. CapitaLand's commercial property business unit CapitaLand Commercial had set up a private retail property fund, namely CapitaRetail Singapore, to hold three suburban retail properties. Instead of acquiring the malls directly, CapitaLand established this Securitisation structure for CapitaMall Trust (CMT) to purchase the malls at a later stage.⁴³²

Asset

The assets in this transaction were mortgage loans granted to CapitaRetail Singapore Limited. The issued notes were serviced by interest and principle payments the secured cross-collateralised bullet loans to three property trusts, each established to purchase a single retail property. The three shopping centres in this transaction were: the Riverdale Mall (independent valuation S\$67.8 m), Lot One Shoppers Mall (S\$253.3 m) and Bukit Panjang Plaza (S\$167.6 m).⁴³³

Transaction Structure

The issuer of the transaction was CapitaRetail Singapore Limited, a special purpose vehicle incorporated under the laws of Singapore. It issued five classes of bonds, all four-year soft bullets with expected maturity in February 2008 and

⁴³⁰ Cf. Anonymous (2003e); Anonymous (2004k); Anonymous (2004m), p. 40; Lam (2004b), p. 1; Rashiwala (2004b); Rashiwala (2004c); Tan and McCarthy (2004), p. 1.

⁴³¹ Cf. Anonymous (2004m), p. 40.

⁴³² Cf. Anonymous (2003e).

⁴³³ Cf. Anonymous (2004k).

legal maturity in August 2009. Two classes of bonds (A and B) were €-denominated, carrying floating rates (indexed to 6-month Euribor), and two classes (C and D) were S\$-denominated, carrying fixed rates. The vehicle had also issued the most subordinated Class E bonds (equity piece) in December 2003 already.⁴³⁴

There was a €67.5 m class rated 'AAA' by all three agencies, €13.5m of 'AA' notes, S\$33 m of 'A' bonds and an S\$83m unrated tranche. The S\$ 213 m equity piece was placed out to international and local investors. CapitaMall Trust⁴³⁵ took S\$58m of 'E' bonds (incl. call options and preference shares).⁴³⁶

The issuer used the bond proceeds from Class A to Class D to re-finance/finance the funding of three existing mortgage loans, one to each property trust. In return, it held all the security interest over the assets of the property trusts. It used the mortgage payments it received to pay the obligations on the bonds. The property trusts used the mortgage loans proceeds to re-finance the properties' acquisitions. Each property trust owned one property and used the mortgage loan proceeds to re-finance the existing debt secured by the property. It had also issued units to make up the equity portion. The units had been subscribed by the SPV, using the proceeds from the issuance of the Class E bonds. The units entitled the issuer to excess cash flow of the property trusts. The issuer also had a call option under which it would be able to call either part or all of the senior notes on any interest payment date occurring on or after the third anniversary of the closing date. This would happen when CapitaRetail Singapore could offer the three malls for sale to CapitaMall Trust.⁴³⁷

Motives

⁴³⁴ Cf. Lam (2004b), p. 3.

⁴³⁵ CapitaLand's retail property trust.

⁴³⁶ Cf. Anonymous (2004k).

⁴³⁷ Cf. Lam (2004b), p. 3.

*"CapitaRetail Singapore will not only increase CapitaLand's fee-based income stream, but can also provide immediate yield-accretion to CMT [CapitaMall Trust] unitholders as well as a subsequent pipeline of deal flow for CMT."*⁴³⁸

The key motive of this Securitisation exercise for CapitaLand was to **get the three retail properties of the books and monetize on them**, without giving up the influence over the properties. Initially the company wanted to divest the malls via its retail trust CapitaMall, but the yields were too low. So this Securitisation, in which CapitaMall Trust also participated, was a way to park the properties. The plan was to improve the tenant mix and to boost their rental yields to a level that would be attractive enough for CapitaMall Trust to buy the malls.⁴³⁹

Silver Loft Investment Corporation:⁴⁴⁰

Originator/Borrower

In March 2004, property company CapitaLand closed Singapore's first office properties CMBS, lead and arranged by HVB. The four times oversubscribed issuance was Singapore's largest CMBS. It financed CapitaLand's plan to spin off its Singapore commercial property portfolio into a new real estate investment trust (REIT), CapitaCommercial Trust (CCT).⁴⁴¹ The issue was rated by all three international ratings agencies – Fitch Ratings, Moody's Investor Service and Standard & Poor's.⁴⁴²

Asset

The transaction was a commercial real estate mortgage loan Securitisation involving four secured loans to CapitaCommercial Trust, a newly established

⁴³⁸ Liew Mun Leong, President and CEO of CapitaLand. Rashiwala (2004b).

⁴³⁹ Cf. Rashiwala (2004b).

⁴⁴⁰ Cf. Anonymous (2004a); Anonymous (2004I); Cheng and Ma (2004a), p. 1; Corcoran and Iwai (2004a), p. 5; Eastham (2004), p. 1; Moody's Investor Service (2004); Rashiwala (2004a).

⁴⁴¹ The S\$2bn (US\$1.17bn) REIT was listed in May. It was funded by the CMBS issue and a capital reduction by its parent. Shareholders in CapitaLand were offered 200 shares in the REIT for every 1,000 CapitaLand shares they held, while the company itself retained 40% of the share capital. This was a move by CapitaLand to monetize on its assets without losing control and to get the assets off their books.

⁴⁴² Cf. Anonymous (2004I).

REIT in Singapore. Hence, the assets underlying the transaction were mortgage loans supported by principal and interest charges on the loans. The loans were secured by first-registered mortgages over four individual commercial office buildings, one mixed-use commercial and retail complex, and two individual commercial car-parking facilities located in Singapore. The subject properties were: Capital Tower, 6 Battery Rd, Robinson Point, Starhub Centre; Bugis Village, Market St Car Park and Golden Shoe Car Park.⁴⁴³

Transaction Structure

Silver Loft Investment Corporation Limited – a special purpose vehicle incorporated under the laws of Singapore – issued 4 classes of notes, which were all US\$-denominated, carrying floating rates indexed to 3-month Libor. The issuer used the note proceeds from Class A1 to A4 to fund 4 term loan facilities, which were extended to Bermuda Trust (Singapore) Limited as the trustee of CapitaCommercial Trust under a facility agreement. In return, the issuer held all security interests over the assets of CCT and used the payments it received under the term loan facilities to pay the obligations on the notes. CCT used the term loan facilities to partially finance its acquisitions of 7 properties as well as for general working capital purpose. The notes were swapped into Singapore Dollars and lent to CCT.⁴⁴⁴

Motives

*"We were able to tap the global capital markets on extremely competitive terms. We also capitalised on the excellent interest rate window which allowed us to achieve a very low blended rate to the benefit of CCT."*⁴⁴⁵

The CMBS issuance functioned as an **innovative financing tool** for CapitaCommercial Trust to acquire CapitaLand's office portfolio. The primary motive was to get the best achievable **financing conditions** – under this structure CCT got long-term Singapore dollar funding as well as a prudent

⁴⁴³ Cf. Eastham (2004), p. 2.

⁴⁴⁴ Cf. Cheng and Ma (2004a), p. 3.

⁴⁴⁵ Liew Mun Leong, President and CEO of CapitaLand. Anonymous (2004l).

interest rate. Moreover the **diversification of funding sources** and the tapping of international debt capital markets were dominant goals.⁴⁴⁶

Arwen Investment Corporation Limited:⁴⁴⁷

Originator/Borrower

The Securitisation of two high-end condominiums in April 2004 was the third deal done by CapitaLand that was backed by sales receivables from development projects. CapitaLand raised US\$155.6 m in a Real Estate Securitisation transaction arranged by HVB Singapore.⁴⁴⁸

Asset

The securitised assets in this transaction were receivables of future payments to be received from the sale of yet to be completed units of two high-end residential projects known as 'The Botanic on Lloyd' and 'The Imperial' in central Singapore. The transaction was backed by sales receivables from the two residential properties. While the 187-unit Imperial was about 85% sold, the 66-unit Lloyd Road project was about 65% sold at closing.⁴⁴⁹

Transaction Structure

The bonds were issued as US-dollar denominated notes by Arwen Investment Corporation Ltd, a special purpose company incorporated under the laws of Singapore. The issuer issued 3 classes of notes. The total issuance amount on the closing date was the equivalent of S\$262 million, of which S\$59.8 million had been deposited into a construction escrow account and S\$16.8 million into an expense escrow account. The remaining amount (after upfront issuance expenses) had been paid to the developers, CapitaLand Residential Realty Pte Ltd and Imperial Realty Limited, as part of the purchase price for the receivables.⁴⁵⁰

⁴⁴⁶ Cf. Rashiwala (2004a).

⁴⁴⁷ Cf. Cheng and Ma (2004b), p. 1; Ho and McCarthy (2004), p. 1; Moody's Investor Service (2004); Tan (2004).

⁴⁴⁸ Cf. Tan (2004).

⁴⁴⁹ Cf. Ho and McCarthy (2004), p. 1.

⁴⁵⁰ Cf. Cheng and Ma (2004b), p. 2.

The notes were distributed internationally and had an expected maturity in October 2006. CapitaLand listed the notes on the Singapore Exchange and the Luxembourg Stock Exchange.⁴⁵¹

Motives

CapitaLand's main motives were to get optimal **long-term Singapore dollar funding** and a prudent **interest rate** structure. A low cost funding was achievable due to the fact that over 80% of the notes were rated 'AAA'.⁴⁵²

4.2.3 Environments

The Development of the Real Estate Securitisation market in Singapore can be divided into 3 evolution stages:

- Stage 1 (1999/2000): Experimental Stage
- Stage 2 (2001/2002): Ripening Stage
- Stage 3 (2003/2004): Growth Stage

The different environments influencing the Singaporean Asset-Securitisation market constituted the framework for this evolution. At the time real estate was the only asset class driving the Asset-Securitisation market in Singapore.

4.2.3.1 Regulatory/Legal Environment

Regulatory

The regulatory and legal environment in Singapore is very favourable for Asset-Securitisation. This circumstance is mainly due to the approach of the government to open up the financial market and the open mindset of its regulatory authority, namely the Monetary Authority of Singapore (MAS).

The Monetary Authority of Singapore (MAS) is the de-facto central bank and regulatory instance in Singapore overlooking the financial markets.⁴⁵³ In January 1998, deputy prime minister Lee Hsien Loong took over as chairman of MAS, and announced a major shift in regulatory policy with a 'lighter touch'

⁴⁵¹ Cf. Moody's Investor Service (2004).

⁴⁵² Cf. Tan (2004).

⁴⁵³ Cf. Sing, *et al.* (2004), p. 1.

approach, moving away from rule-based regulation, towards a risk-weighting approach. In this context he re-organised MAS and set up a Financial Sector Promotion Department (FSPD) within MAS.⁴⁵⁴

In the following period, the chairman initiated a policy review that culminated in a dynamic new strategy announced in August 1998. The objective was to turn Singapore into the leading debt securities market in Asia outside of Japan.⁴⁵⁵ The new policy was aiming at raising the profile of the Singapore market and making it a viable alternative market for raising funds. The move represented a significant step towards achieving Singapore's ambition of becoming a leading debt trading centre in Asia. The government's objective was to reform the fiscal and regulatory systems in order to give freer rein to market dynamics. Moreover, the initiative intended to increase the market's depth and liquidity through more government bond issues,⁴⁵⁶ to widen the market by encouraging Government-Linked Corporations and other financial institutions to issue bonds and to setup a MAS sponsored Mortgage-Backed Securitisation vehicle. The new policy not only gave local banks and corporates the tools to manage their balance sheets more effectively, but it also attracted capital markets activity to Singapore.⁴⁵⁷

Also in 1998 the MAS recognised the potential and the benefits of Asset-Securitisation for Singapore and the government authority came to the decision that it wanted to develop this part of the debt market in Singapore.⁴⁵⁸ Especially Mortgage-Backed Securitisation and the institution of a Mortgage Corporation seemed to fit in with Singapore's strategy to become the leading market for bonds, derivatives and other new financial instruments in Southeast Asia.⁴⁵⁹

⁴⁵⁴ Cf. Montague-Pollock (1999), p. 7.

⁴⁵⁵ Cf. Anonymous (1998d).

⁴⁵⁶ There was a debt market before this initiative, but it was very small and illiquid. As Singapore had consistently run sizeable budget surpluses, the government had found little incentive to borrow. Issuance tended, therefore, to be sporadic, at the short end of the curve and offered generally low yields. This resulted in thin liquidity and the lack of a yield curve based on which other debt instruments could realistically be priced.

⁴⁵⁷ Cf. Anonymous (1999u), p. 14.

⁴⁵⁸ Cf. Hay (1998), p. 3.

⁴⁵⁹ Cf. Tharmalingam (1999).

Existing strict banking secrecy laws in Singapore, however, made it difficult for banks to issue Mortgage-Backed Securities. Section 47 of the Banking Act, which dealt with banking secrecy, became a major obstacle to Securitisation originated by banks and financial institutions. Under this section banks were not allowed to disclose borrower details.⁴⁶⁰

As Securitisation demands a high degree of transparency, banks that wanted to issue Mortgage-Backed Securities needed to provide detailed information about the underlying loans in order to satisfy the conditions for credit ratings.⁴⁶¹ This, however, was breaching Section 47. While banks could insert a clause in new loan documents to obtain express consent from customers for such disclosure, this was not possible to be done for older loans, effectively limiting the pool of assets available to banks for Securitisation.⁴⁶²

Therefore, MAS also needed to review and make changes to the Banking Act to allow transaction participants greater access to portfolio details, which was not done lightly, but given its determination to smoothen the path for the development of the debt market, MAS did every effort possible to find a way to overcome this obstacle.⁴⁶³

At the time Singapore did not have any laws governing Asset-Securitisation. This is why the Monetary Authority also drew up draft guidelines and published those in January 1999. Although there were not any laws in place then, it was not a problem for most companies to undertake this type of financing. It was only banks that were subject to strict regulations.⁴⁶⁴

This is the reason why the first wave of Real Estate Securitisations in 1999 was such a success. The companies were allowed to remove commercial buildings from the balance sheet, revalue them and securitise them by offering 10-year bonds at a fixed coupon rate. In absence of final guidelines MAS only required

⁴⁶⁰ Cf. Montague-Pollock (1999), p. 7.

⁴⁶¹ In a loan Securitisation deal, buyers and rating agencies require intimate details of the assets on offer to assess potential risks and rewards.

⁴⁶² Cf. Kong (1999a).

⁴⁶³ Cf. Anonymous (1999p).

⁴⁶⁴ Cf. Chan (1999).

the transactions to include a clear identification of the asset, the true separation of the asset from the originating company's balance sheet and the enhancement of the transaction through the sale of the asset to a special-purpose vehicle.

The final rules on Asset Securitisation for Banks (MAS 628) came into effect on 06 September 2000.⁴⁶⁵ It suggested conditions for Securitisation to be treated as a true sale and rules for banks to be able to participate.⁴⁶⁶

The key propositions for all participating institutes are as follows:

1. **Prior Approval from MAS:** "Any bank proposing to act as seller or manager, either solely or jointly with other parties, in a Securitisation transaction must seek prior approval from the Authority."⁴⁶⁷
2. **Supervisory Considerations:** "As a result of their involvement in Securitisation transactions, banks will incur operational, legal and/or other risks. To ensure that banks conduct Securitisation transactions in a prudent manner, the Authority may impose supervisory limits on the volume or types of assets, which may be securitised."⁴⁶⁸
3. **Disclosure Requirements:** "Any bank participating in a Securitisation transaction must take reasonable steps to disclose to investors the nature and extent of its contractual obligations in the Securitisation transaction."⁴⁶⁹
4. **Separation Requirements:** "In order to limit a bank's reputational risks with respect to a Securitisation transaction, there must be clear separation between the bank and the SPV."⁴⁷⁰

Additionally the guideline included:⁴⁷¹

⁴⁶⁵ Even though the rules were addressed at banks, they became a proxy for all kinds of originators. They also regulated how banks had to behave as arranger.

⁴⁶⁶ Cf. Monetary Authority of Singapore (2000), p. 2.

⁴⁶⁷ Cf. Monetary Authority of Singapore (2000), p. 2.

⁴⁶⁸ Cf. Monetary Authority of Singapore (2000), p. 2.

⁴⁶⁹ Cf. Monetary Authority of Singapore (2000), p. 3.

⁴⁷⁰ Cf. Monetary Authority of Singapore (2000), p. 3.

⁴⁷¹ Cf. Monetary Authority of Singapore (2000), p. 4.

- Requirements for Banks as Sellers
- Requirements for Banks Providing Servicing, Credit Enhancement and/or Liquidity Facilities
- Requirements for Banks as Investors

Despite of this guideline MAS accepted that no two Securitisation deals were the same and adopted a flexible approach that looked at each transaction on a case-by-case basis.⁴⁷²

*"MAS is very committed to getting this market kick-started and they are not going to stand in the way of any deals..."*⁴⁷³

Finally in May 2001, MAS also resolved the banking secrecy obstacle by issuing the Bank (Amendment) Bill. The bill allowed banks to disclose the required credit information during the sale of the mortgages in Residential Mortgage-Backed Security transactions. Additionally the bill required all local banks to divest their non-core assets, most of which are property, within three years; another spur for the Real Estate Securitisation market.⁴⁷⁴

Legal

The legal system is important for foreign investors, as those only buy bonds from jurisdictions with a transparent legal system and one in which the banks have precise data on the historic performance of asset pools. Singapore fulfils these criteria.⁴⁷⁵

The common law system (historically based on English law) provides a sound legal platform for Asset-Securitisation transactions.⁴⁷⁶ There are no obstacles concerning the transfer of assets, the incorporation of SPV's or bankruptcy issues. Singapore is a reliable bankruptcy and legal environment.⁴⁷⁷

⁴⁷² Cf. Choong (1998).

⁴⁷³ Martin Taylor, Head of Debt Product Origination and Sales, HSBC Markets, Singapore. Cf. Montague-Pollock (1999), p. 7.

⁴⁷⁴ Cf. Anonymous (2002n).

⁴⁷⁵ Cf. Anonymous (1999w).

⁴⁷⁶ Cf. Anonymous (1999x); Corcoran and Iwai (2004a), p. 1.

⁴⁷⁷ Cf. Anonymous (1999v).

Today, most of the recommendations, concerning the promotion of the bond market and the inception of an Asset-Securitisation market, are in place. With the government promoting its bond market and its Government-Linked Corporations issuing bonds backed by property assets, Singapore has become Southeast Asia's leading market for Real Estate Securitisation issues.⁴⁷⁸ The regulatory environment, the Monetary Authority's open mindset, and the sound legal environment played a substantial role in this evolution.

4.2.3.2 Tax Environment

As with the regulatory environment, the tax environment in Singapore is also very favourable for Real Estate Securitisation. It was a strong driver in the evolution of this market.⁴⁷⁹ In sync with its regulatory promotion of the debt market, the government has also stimulated the issuance of Asset-Backed Securities from the tax side. Additionally, there is no capital gains tax in Singapore. Hence, this environment has created a lot of interest from domestic as well as international investors.⁴⁸⁰

In this regard the tax treatment of fixed income securities was changed. The change included a concessionary tax rate of 10 percent on income earned from trading for financial institutions in Singapore and a similar 10 percent tax rate on interest income for domestic investors, which was less than half the standard corporate tax rate of 26 percent at the time. Additionally the authorities exempted offshore investors⁴⁸¹ who did not have a permanent establishment in Singapore from paying withholding tax on interest payments.⁴⁸²

In addition the Inland Revenue Authority – that is in charge of gathering the taxes – implemented tax changes that have also made the market more attractive to issuers and arrangers of Real Estate Securitisations. Under this special rule exemptions were granted on fee income derived from arranging,

⁴⁷⁸ Cf. Lam (2004a), p. 4.

⁴⁷⁹ Cf. Heng (2003), Interview 7, p. 554.

⁴⁸⁰ Cf. Seck (2003), Interview 3, p. 554.

⁴⁸¹ International investors whose countries have a double taxation treaty with Singapore benefit from this rule, since they neither have to pay taxes on interest income in Singapore, nor in their home country.

⁴⁸² Cf. Heng (2003), Interview 7, p. 554.

under-writing and distributing debt securities in Singapore. This made it more profitable for banks to underwrite debt securities in Singapore and reduced the cost of the arrangement to the borrowers.⁴⁸³

Moreover the stamp duty – the tax that applies to the sale of the property from the originator to the SPV –⁴⁸⁴ can be reduced to a minimum, when the asset is transferred in a share deal. In a normal real estate transfer the tax would be 3%, but it is reduced to 2% if the seller sells company shares instead of the title. In this context the SPV issuing the bonds will not buy the property, but it will buy shares of another Asset-SPV that holds the property. Hence, this leads to a reduction in stamp duty.⁴⁸⁵

The MAS's Financial Sector Promotion Department was also strongly involved in the creation of this tax exemption as a part its task in promoting the debt market:

“Tax issues, for instance, vary across transactions, and the MAS is prepared to help financial institutions address tax questions with the Inland Revenue Authority.”⁴⁸⁶

4.2.3.3 Accounting Environment

When the government decided to push the bond market and kick off Asset-Securitisation in 1998, auditors still followed the Singapore Accounting Rules that made the city state a favourable accounting environment for off-balance sheet Asset-Securitisation.⁴⁸⁷

Off-balance sheet treatment for their real estate was the real estate developer's primary objective in the beginning of the Singapore Asset-Securitisation market. This became especially evident in the first stage (1999/2000), as there were 7 transactions in one year. Part of the reason why there were so many transactions was that it was possible for real estate developers to achieve off-

⁴⁸³ Cf. Anonymous (1999u), p. 16.

⁴⁸⁴ Cf. Ooi (2003), Interview 4, p. 554.

⁴⁸⁵ Cf. Anonymous (2003), Interview 1, p. 554.

⁴⁸⁶ Yeoh Lian Chuan, Assistant Director, Financial Sector Promotion Department, Monetary Authority of Singapore. Cf. Choong (1998).

⁴⁸⁷ Cf. Wong (2000).

balance sheet treatment for their real estate and hence to lower their leverage ratios, while using Real Estate Securitisation as a financing vehicle.

However, this situation dramatically changed after the Enron scandal in the US. Enron took its toll on off-balance sheet deals in Singapore. Since the revelations that Enron had used Special Purpose Vehicles (SPVs) in securitised deals, auditors in Singapore – mindful of the sudden demise of Arthur Andersen – took a very conservative view on Asset-Securitisation deals.⁴⁸⁸

“It’s an obstacle to business right now. More deals are failing post-Enron than before...What is important is that they [the auditors] need to be consistent with other markets; at the moment, I do not think they are.”⁴⁸⁹

Hence, auditors put the multi-billion dollar market in Asset-Securitisation at stake that Singapore regulators had been trying to develop since 1998. The accounting development changed the market place so that the structures used in the second stage (2001/2002) of the Real Estate Securitisation market’s evolution were put under an enormous scrutiny by Singapore accounting firms and as a consequence of this the transactions became more adapted to international rules.⁴⁹⁰

The key measure, judging if an Asset-Securitisation was on- or off-balance sheet became the distribution of risk, which was more prudent and closer to international accounting standards. Under this new accounting policy the question that had to be answered was:

“Whether the risks and the rewards that come with the asset have been passed on to the new owner, or still remain to a great extent with the original owner.”⁴⁹¹

Whereas in this second stage more and more transactions were structured in such a way that they could truly be considered off-balance sheet by international standards, the first stage was stamped by ambivalent off-balance

⁴⁸⁸ Cf. Ong (2002).

⁴⁸⁹ Cf. Gary Watmore, Asian Head of Asset-Securitisation, ABN Amro. Cf. Ong (2002).

⁴⁹⁰ Cf. Ong (2002).

⁴⁹¹ Cf. Tan (2000).

sheet structures⁴⁹² that later came back on-balance sheet, as was the case with DBS Land's transactions that were originated in 1999 with the intention to relieve the company's balance sheet.⁴⁹³

The reason why DBS Land encountered several accounting changes and as a consequence had to put the properties back on-balance sheet was that after the assets were sold to the SPVs, the company still held contingent liabilities (put options) as well as call options on its properties. In this process the company had to reclassify billions of Dollars on the balance sheets – the company had to book its redeemable convertible cumulative preference shares as debt instead of equity. In accordance with this measure DBS Land also had to put its three divested and securitised office buildings back on its balance sheets. Consequently, the moves made the company's bottom-line deteriorate and it had a major impact on its debt-to-equity ratio,⁴⁹⁴ which is a key financial ratio for property companies.⁴⁹⁵

This measure suggested that the Real Estate Securitisation transactions in 1999 were not meant to be divestment sales but financing arrangements. As ownership had not been transferred irrevocably, these issues were not exactly true asset sales, but rather a unique form of long-term financing under an Asset-Securitisation structure whose interest payments for the next 10 years were financed by rental proceeds from the office buildings.⁴⁹⁶

This above analysis shows that the accounting environment played a vital role in the inception and evolution of the Real Estate Securitisation market in Singapore. It is a proof for the importance of accounting as integral part of the overall environment that influences Asset-Securitisation markets.

⁴⁹² The structures were first considered off-balance sheet and approved by the international accounting firm PricewaterhouseCoopers. Cf. Anonymous (2000a).

⁴⁹³ Cf. Chapter 4.2.2.2: Identified Transactions, p. 105.

⁴⁹⁴ By this measure DBS Land's debt-to-equity ratio, which is defined as the ratio of total borrowings net of cash over shareholders' funds, was raised from 0.5 in December 1999 to 0.82 in July 2000. Cf. Tan (2000).

⁴⁹⁵ Cf. Tan (2000).

⁴⁹⁶ Cf. Anonymous (2000c).

4.2.3.4 Rating Environment

In 1998, in accordance with the promotion for the bond market, the MAS considered to build up a homegrown rating agency for rating bond transactions in the Singapore market. The institution was part of the recommendations made to the Monetary Authority. However, the MAS sensibly decided against such an agency, figuring that it would lack credibility.⁴⁹⁷

As a consequence, rating and rating agencies did not play a role in the first stage and in most of the second stage of the Singapore market. The transactions were placed on-shore with institutional investors that were very comfortable with the properties securitised (well-known trophy properties leased out to 'AAA' tenants on long leases), the originators (mostly Government-Linked Corporations) and the bond issuers (mainly DBS Bank, later also HypoVereinsbank Singapore).⁴⁹⁸

Hence, the rating environment was partly favourable in the sense that domestic investors in Singapore did not require a rating. This made the transactions cheaper for the originators as well as more unique from a structural standpoint. It gave a greater flexibility to arrangers to tailor the transactions to the needs of borrowers and investors in the domestic Singapore market.

From the international rating agencies' standpoint these unrated transactions were not true asset sales. To them the originators have typically issued debt in a single tranche with a loan-to-value ratio (LTV) of around 60% (i.e. the senior tranche), the remainder (i.e. the junior tranche) they considered to be equity-funded. Historically, Singaporean investors have not required ratings although the agencies believe that this is changing. For the future, the agencies are of the opinion that investors will be better served in a market where differences in property types, risks and rewards are distinguished through credit ratings and debt tranching. They believe that as investors become more familiar with ratings and the methodology used by all international ratings agencies, rated deals will become more prevalent.⁴⁹⁹

⁴⁹⁷ Cf. Montague-Pollock (1999), p. 7.

⁴⁹⁸ Cf. Sing (2003), Interview 5, pp. 554.

⁴⁹⁹ Cf. McCarthy, *et al.* (2003), p. 7.

It is evident that rating agencies predict more rated transactions, since they want to generate new business. However, with this development Singapore will lose its unique flavour and structural flexibility, as the standardised international CMBS structures will be increasingly implemented.

4.2.3.5 Investor Environment

The Investor Environment was very advantageous for the initiation of the Real Estate Securitisation market and it was helpful for the successful evolution of the market in general. In the beginning of the market the main question was: Will there be enough demand to absorb all these new issues?

Most of the new issues were over-subscribed, even though they were placed privately. This was supported by a strong domestic investor base: There were 10 large insurance companies in Singapore and about 10 to 20 domestic bond fund managers that were all keen to buy Singaporean bonds of good quality, bearing in mind that there were not many good quality bonds in the region at the time. On top of that, each bank in Singapore ran a private banking and asset management business, and they were always keen to sell bonds to their own clients. Furthermore, there was also a strong demand from the corporate sector, including Government-Linked Corporations.⁵⁰⁰

In addition to raising interest for the market with institutional investors, the government tried to raise the interest of retail investors (private investors, non institutional investors) in order to put the bond market demand on a broader foundation. This was encouraged by the fact that 10% of pre-specified bond issues were reserved for retail investors, in contrast to normal bonds, which were sold to 'qualified' institutional investors only in denominations of more than S\$200,000. Retail demand was also encouraged by the ease of subscription as investors could purchase the securities through the Singapore banks' ATM network.⁵⁰¹

Within the debt market Real Estate Securitisation bonds were especially interesting to investors because they benefited from higher yields – compared

⁵⁰⁰ Cf. Corcoran and Iwai (2004a), p. 3.

⁵⁰¹ Cf. Montague-Pollock (1999), p. 9.

to ordinary bond issues – and additionally the investors had the chance to participate in future capital appreciation of the properties. Another speciality to Securitisation transactions was the sub-participation of two different bond classes. Investors could choose various risk exposures, as the bonds were issued in low-risk senior tranches and higher-risk junior tranches. Hence, the higher the risk, the higher the interest rate and the higher the participation in potential capital appreciation of the property. This was also the reason, why in the first Securitisation deals, the originators, i.e. the sellers of the property assets, subscribed for bonds in the junior tranche, which carried the highest risk as well as the lowest priority in the event of a default. This provided a comfort zone to senior bondholders and for the originators it provided the opportunity to still hold the residual interest in the asset and to be able to control the asset. Therefore the position of the originator did not change much: the company was still holding the equity position, still had the control over the asset and still participated in the upside.⁵⁰²

Another speciality unique to the first and second stage deals in Singapore was the additional credit enhancement through predictable cash flows. While there were no guarantors for the bonds, the originating company (often a Government-Linked Corporation) usually signed a 10-year leaseback agreement with the Special Purpose Vehicle, which assured all bondholders of a well-defined cash flow stream. This was a quasi guarantee for the investors and represented an additional security that made the Real Estate Securitisation issuances desirable for investors.⁵⁰³

Investors did not only benefit from credit enhancement, but also in the appreciation of the property through preference shares attached to the bonds. So in the case the real estate was sold during the next 10 years duration of the bond, the investors would stand to benefit from any capital gains to be made.⁵⁰⁴

Besides showing that this underlines that Real Estate Securitisation – especially in the first stage – was not intended to be a true divestment of assets, but an

⁵⁰² Cf. Rashwala (1999a).

⁵⁰³ Cf. Elias (1999).

⁵⁰⁴ Cf. Raj (1998).

innovative financing that gave investors the chance to diversify their portfolio and invest into prime real estate that they did not have a chance to invest in previously.

The above elaboration shows the significance of the investor environment on Real Estate Securitisation. While investors were important for the success of the market, the market was also important for the success of the investor side. Investors were seeking new investment opportunities that they did not have before, and hence it was crucial for the market to address the requirements of the investor side. The issues offered unique opportunities for investors as well as for originators. For investors the Real Estate Securitisation securities offered features that were not achievable with 'plain vanilla' bonds and for originators this offered the chance to innovatively finance their property assets, by partly divesting the asset while not giving up the control.

*"The issue is structured with a number of credit enhancements, which make it superior to a straight bond issue. Besides having the building as collateral, senior bondholders also have a security buffer of 35%."*⁵⁰⁵

4.2.3.6 Real Estate/Local/Cultural Environment

The real estate, local and cultural environment played a vital role in the evolution of the market in Singapore. The first Real Estate Securitisation deals in – what was then – a nascent Singapore debt market were coined by local peculiarities that were fuelled by a special cultural environment in a real estate market that had never before experienced a downturn.

*"...international investors do not understand the Singapore market. The transactions were tailored to fit Singapore requirements and Singapore funding sources... The local real estate market plays a very important role."*⁵⁰⁶

The NOL deal and the subsequent other real estate deals were regarded as the first real Asset-Securitisation transaction locally and demonstrated how debt structures established elsewhere could be adapted to suit local conditions. Especially the first transaction by Neptune Orient Lines (NOL) was ground

⁵⁰⁵ Eric Ang, Managing Director and Head of Capital Markets, DBS Bank. Cf. Keng (1999).

⁵⁰⁶ Cf. Yeo (2003), Interview 2, p. 554.

breaking. The deal contained vital elements of a classic Securitisation transaction but yet lacked other prominent features due to local peculiarities. Under the general structure invented in the NOL case, the asset – NOL Building – was clearly separated from the company and sold to an SPV, which was specially set up to buy the building. When the sale was completed the SPV issued (usually) 10-year fixed-rate bonds – backed by the building – to the arranger, who in turn placed out the bonds to major local investors.⁵⁰⁷

While this general structure was similar to that used in Securitisations elsewhere, the first Singapore transactions departed from the usual pattern in that they were both unrated and did not carry any external guarantees. Whereas in most instances, credit ratings were regarded as crucial to the success of a Securitisation deal,⁵⁰⁸ in Singapore they were not. The feeling was that issues were too small to be targeted at offshore market.⁵⁰⁹ They were only targeted at the domestic market and hence did not need to be rated, especially when the government was involved. The government enjoyed – and still enjoys – an excellent credit standing.⁵¹⁰ Moreover government-linked institutions also dominated the domestic investor base. In the NOL case, the originator was a Government-Linked Company and the arranger was a Government-Linked Bank. So the government linkage of all companies involved played a crucial role in getting the market lifted off the ground.⁵¹¹

Beyond the government involvement, for originating companies it was not very favourable to go through a rating process. Ratings incurred additional (high) costs and invited a scrutiny, which many local corporations did not find comfortable and still do not find comfortable. This is also underlined by the fact that most companies in Singapore do not even have a corporate rating. Hence,

⁵⁰⁷ Cf. Kong (1999b).

⁵⁰⁸ A high rating is crucial to the success because it attracts more investors, who would also be willing to accept a lower interest rate for the bonds, thereby reducing the ultimate cost of funds for the originator.

⁵⁰⁹ Cf. Anonymous (2003), Interview 1, p. 554.

⁵¹⁰ Singapore's credit rating is 'AAA'. Cf. Tan and McCarthy (2004), p. 6.

⁵¹¹ Cf. Kong (1999b).

even though the Monetary Authority of Singapore recognised the benefits of ratings for a transparent market, it left the decision to the originators.⁵¹²

The second feature that the deals in the first stage were lacking was third party guarantees that are commonly seen in Securitisation deals. A lot of structures contained a limited guarantee or a full guarantee or both, provided by financial guarantee firms, so called Monoline Insurers.⁵¹³ While obtaining a guarantee always incurs costs, it provides credit enhancement and makes the Asset-Backed Securities more attractive to a wider pool of investors. Again, as in the case for ratings, the involvement of the government through the Government-Linked Corporations had precluded the need for a guarantee in the deals.⁵¹⁴

In a nutshell, the local environment that was influenced by the cultural mindset specific to Singapore had an enormous impact on the evolution, as well as on the structures utilised in the first and second stage of the market. The clear driver was the involvement of the government and the well-defined goal to make Singapore into Southeast Asia's leading competence centre for financial innovation. The NOL transaction and all other property Securitisations following in 1999 had a "uniquely local flavour" and paved the way for all other kinds of Asset-Securitisation in Singapore.

On the other hand the development in 1999 was also fuelled by Singapore's position in the Real Estate Market Cycle, i.e. the position in the financial as well as the physical cycle of the commercial real estate market in Singapore.⁵¹⁵

1. Physical Cycle:⁵¹⁶

- a. In Southeast Asia the major centres – Singapore, Hong-Kong and recently Shanghai – went through great boom times. First Hong-

⁵¹² Cf. Anonymous (2003), Interview 1, p. 554.

⁵¹³ Monoline insurers insure transactions against credit risk and thereby give guarantee to investors. Cf. Rügemer (2003), Interview 21, p. 564.

⁵¹⁴ Cf. Kong (1999b).

⁵¹⁵ For further information on financial and physical cycles of real estate markets confer Mueller (1995), p. 47; Mueller (1999), p. 131; Mueller (2002), p. 115.

⁵¹⁶ Mueller depicts the physical market cycle as an occupancy cycle. It mirrors the supply and demand situation for physical space on a specific real estate market. Cf. Mueller (1999), p. 134.

Kong, then Singapore and now Shanghai. A boom of economic growth – high GDP growth – fuelled mainly by Foreign Direct Investments attracted a lot of multi-nationals, financial services and major manufacturing companies. The companies all needed offices, so the office demand grew rapidly. This drove up rents and capital values. Over the years there was no downturn in space demand and as a result the total return was driven by capital gain and not by yields. Landlords could demand high rents on short leases and the capital values were constantly on the rise. However, as the centre of economic activity shifted from Singapore to Shanghai, China and occupancies and rents dropped dramatically leaving owners with high cost properties that suddenly had very low yields that were not made up by capital appreciation at the end of the holding period any more. Property values in Singapore kept dropping and put property owners under pressure, because owning real estate became very expensive. However, developers were reluctant to accept low valuations; somebody “needed to take a hit”, but owners were not prepared to do that.⁵¹⁷

- b. Asset prices, including commercial and residential real estate – after years of above average growth in asset values – were on a decline. The equity, especially in highly leveraged real estate projects, was melting down and debt financing was hard to achieve.⁵¹⁸
- c. The market was in a deep recession – 4th quadrant of the market cycles model – pictured by increasing vacancy and new completions. There was negative demand growth but also construction completions – especially of high-grade properties – that pushed vacancy even higher.⁵¹⁹

⁵¹⁷ Cf. Yeo (2003), Interview 2, pp. 554.

⁵¹⁸ Cf. Anonymous (1999v), p. 40.

⁵¹⁹ Cf. Mueller (1995), p. 50.

- d. This situation coincided with another development. Companies – Corporates as well as Developers – were desperate to sell their real estate in order to relieve their balance sheets from high debt burdens. The first transactions (NOL) provided a good example case for this development because NOL – Government-Linked Company – was at that point going through very difficult times and it needed to liquidate its assets. Real Estate Securitisation was an optimal way for them to raise cash, while still being able to occupy the building. They wanted to monetize on their assets and get the assets off-balance sheet in order to reduce debt levels. So most of the Singaporean development companies looked at their property portfolios seeking opportunities to sell if possible and if not to use the opportunity of vehicles like Asset-Securitisation to get them off-balance sheet. The clear intention was to unlock the values from the assets. This put a lot of pressure on the physical real estate market.⁵²⁰

2. Financial Cycle:⁵²¹

- a. 1999 was the time after the Asian financial crisis had hit the region. Capital flows into real estate were down. Banks did not lend any money and developers as well as investors did not have the capital base to be able to fund huge asset purchases with high equity ratios. Additionally to that, most of the real estate loans that were taken up in 1994/1995 matured around 1999.⁵²² 1999 was a very unfavourable year for refinancing. Interest rates were high due to the Asian Financial Crisis and companies found it difficult to refinance their real estate bank loans. This even amplified the situation of most developers that did not have a strong equity

⁵²⁰ Cf. Seck (2003), Interview 3, p. 554.

⁵²¹ The financial market cycle mirrors capital flows to real estate and especially to new construction. Capital flows to real estate have influences external to those affecting the physical real estate market. Capital Flows are the major factors affecting prices in real estate. This is why the physical and the financial cycle both influence the observed real estate market. Cf. Mueller (2002), p. 123.

⁵²² Loans in Singapore usually have a maturity of 5 years.

base, and hence reached very high debt ratios in 1999. There was a credit crunch.⁵²³

- b. The public market was not developed, yet, and the domestic private market did not have the financial resources to generate great capital flows into real estate. International institutional investors were not comfortable with direct investments in Singapore, especially following the Asian Financial Crisis. Demand was down, no investor could afford to buy properties at such high price levels – bearing in mind that there was no affordable financing achievable.⁵²⁴
- c. The Singapore real estate market was at crossroads, regarding capital flows into real estate. Bank loans were very hard to come by. However, developers needed to relieve their balance sheets and address the high debt problem. Real Estate Securitisation came as a way to tap new funding sources and channel ‘fresh capital into the sluggish real estate market’. Using the Securitisation structure, the originators bypassed an outright sale of the asset in a market that did not have the capital flows to buy. This fuelled the development of the first ‘public’ capital market for real estate in Singapore.⁵²⁵

This leads to the conclusion that the evolution of Real Estate Securitisation was dependent on the real estate market cycle. It was fuelled by declining demand, increasing supply in prime office space, and hence high vacancies. The trough in the financial cycle was fuelled by the credit crunch due to the Asian Financial crisis, and hence low loan commitments by banking institutes. Additionally high capital values, low yields, a weakening physical market and feeble capital flows into real estate made it a difficult environment to sell real estate. As private debt and equity were scarce, the only way to divest was to drastically lower the asset price, but companies were reluctant to sell their assets in such a bad market – it

⁵²³ Cf. Ooi (2003), Interview 4, p. 554.

⁵²⁴ Cf. Seck (2003), Interview 3, p. 554.

⁵²⁵ Cf. Yeo (2003), Interview 2, p. 554.

would have resulted in extraordinary losses. They were looking for innovative ways to finance their real estate off-balance sheet or divest it at high valuations. Real Estate Securitisation opened an alternative public vehicle to do that.

This suggests that there is an optimal timeframe for the initiation of Real Estate Securitisation markets and for developing creative structures and initiating groundbreaking transactions. In Singapore, this was successful at a time, when the market was in a downturn; banks did not lend money and capital flows from the private market declined.

*"It is a difficult climate to sell in and few people want to buy. And among those who want to buy, they do not have the means to buy the whole building. So Securitisation is the best option here..."*⁵²⁶

4.2.4 Core Determinants

The information referred to in the following analysis is based on the author's compilation of different sources relating to Real Estate Securitisation transactions in Singapore. The information is derived out of structured interviews, newspaper and magazine articles, and out of rating and company reports. Which sources relate to which transaction can be observed in the footnotes behind the transaction names depicted in Chapter 4.2.2.2.

4.2.4.1 Borrowers

The Originator/Borrower Analysis first shows the deal reference information: transaction and special purpose vehicle name, issue date and arranging bank (see Chart 5, Chart 6, Chart 7). Then it delineates all the details relating to the company owning the assets, i.e. the seller of the assets, who is usually called the borrower or originator. This data consists of the originator name, the type of company (Corporate, Real Estate Developer or Investor), the ultimate holding company (Private, Public or Government-Linked Corporation) as well as an indication if the originator is listed on the stock exchange and if the originator and the transaction are rated.

⁵²⁶ Cf. Anonymous (1999r), p. 8.

Stage 1 (1999/2000) – Originator/Borrower Analysis (Chart 5):

Most of the Real Estate Securitisation transactions in the first stage were structured in 1999 – there was only one transaction in 2000. The innovator of the market and the dominant arranger at the time was DBS Bank – a Government-Linked Bank.

The leading originator of assets in 1999/2000 was DBS Land (today called CapitaLand) – also a Government-Linked Corporation. DBS Land also stood for the leading type of originator: Real Estate Developer – keeping in mind that most real estate developers in Singapore at the time were investment developers. This changed over time to being service and trader developers, as the government who was – in most cases – the ultimate owner loosened its grip. However, this circumstance offers an explication, why real estate developers and not real estate investors were so much involved in this development at this stage. There were essentially no companies holding investment real estate in Singapore except for the Government-Linked Real Estate Developers. This is mainly due to a very unique institutional framework in Singapore.

All the companies were listed on the stock exchange, but none of those companies had a corporate rating. This counts for all transactions observed in Singapore. Since most companies, even the publicly listed companies are government-linked, there is no need to get a corporate rating; the government has a 'AAA' credit rating. Investors in Singapore listed companies get a comfort from this fact.

The first stage of transactions was very much characterized by its exclusiveness; the transactions were mostly privately placed and not rated.

Stage 2 (2001/2002) – Originator/Borrower Analysis (Chart 6):

In stage 2 there were only two transactions in 2001; in return however, there were 5 transactions in 2002. The reason was that the new approach to off-balance sheet financing and stricter criteria led to a new innovation process that needed time – the ice in the market had to be broken once again.

In this stage, DBS Bank was still successful, but HypoVereinsbank Singapore (HVB) also moved into the market becoming DBS Bank's biggest competitor – HVB brought international know-how into the market. The reason that a foreign bank could build a stronghold in the Singapore market also underlined the government's commitment to open up the financial markets to international players. This development resembled the early stages in both Japan and Taiwan, as locally based originators and international arrangers joined together to promote the market. It has the advantage that by doing this local real estate expertise is coupled with experience in global capital markets.⁵²⁷

The market in that phase was once again dominated by Government-Linked Corporations, with CapitaLand (the successor of DBS Land and Pidemco Land) continuing to hold its position as leading originator in Singapore.

New and innovative to this stage of the market was that in June 2001 the first Real Estate transaction got rated (Peridot Investments). Altogether in 2001/2002, three out of seven transactions got rated.

⁵²⁷ Cf. Corcoran and Iwai (2004a), p. 5.

Stage 1 (1999 - 2000): Originator/Borrower Analysis

Originator/Property/Transaction Name	Neptune Orient Line (NOL)	Century Square Shopping Mall	Robinson Point	Silverlac Investments	268 Orchard Road	Tampines Centre	Six Battery Road	Wilby Residence
Issuance								
Transaction Name (=SPV Name)	Chenab Investments Ltd.	Pemberton Development Ltd.	Visor Limited	Silverlac Investments	Baronet Limited	Tampines Properties	Clover Holdings Limited	Brizay Property Ptd Ltd.
Issue Date	March 1999	June 1999	July 1999	August 1999	September 1999	November 1999	November 1999	September 2000
Arranging Bank	DBS Bank	DBS Bank	DBS Bank	Tokyo-Mitsubishi International (Singapore)	DBS Bank	DBS Bank	DBS Bank	Overseas Union Bank (OUB)
Originator/Borrower								
Name	Neptune Orient Line (NOL)	First Capital Corporation (today Guocoland)	DBS Land (today CapitalLand)	Pidemco Land (today CapitalLand)	DBS Land (today CapitalLand)	DBS Bank	DBS Land (today CapitalLand)	Tan Chong International
Type	Corporate (Shipping company)	Real Estate Developer	Real Estate Developer	Real Estate Developer	Real Estate Developer	Corporate (Bank)	Real Estate Developer	Corporate (Car Retailer)
Ultimate Holding Company	Government-Linked Corporation	Public Company	Government-Linked Corporation	Government-Linked Corporation	Government-Linked Corporation	Government-Linked Corporation	Government-Linked Corporation	Public Company
Originator listed on exchange	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Rated Originator/Borrower	No	No	No	No	No	No	No	No
Rated Transaction	No	No	No	No	No	No	No	No

Chart 5: Singapore – Stage 1 – Originator/Borrower Analysis

Source: Author's compilation

Stage 2 (2001 - 2002): Originator/Borrower Analysis

Originator/Property/Transaction Name	Raffles City	Peridot Investments	Wisma Atria	Jasmine Investment	Compass Point Shopping Centre	Capital Square	Aragorn Investment
<u>Issuance</u>							
Transaction Name (=SPV Name)	Tincel Ltd.	Peridot Investments	Upperton (Aspinden) Holdings	Jasmine Investment Corporation Ltd.	Sengkang Mall Ltd.	Queensley Holdings Limited	Aragorn Investment Corporation
Issue Date	June 2001	June 2001	May 2002	June 2002	November 2002	November 2002	December 2002
Arranging Bank	DBS Bank	HVB-Singapore	United Overseas Bank (UOB)	HVB-Singapore	DBS Bank	DBS Bank	HVB-Singapore
<u>Originator/Borrower</u>							
Name	Raffles Holdings	CapitalLand Residential	Wisma Development	Keppel Land	Fraser & Neave	Keppel Land	CapitalLand Residential
Type	Corporate/ Real Estate Investor	Real Estate Developer	Real Estate Developer	Real Estate Developer	Real Estate Investor	Real Estate Developer	Real Estate Developer
Ultimate Holding Company	Government-Linked Corporation	Government-Linked Corporation	Public Company	Government-Linked Corporation	Public Company	Government-Linked Corporation	Government-Linked Corporation
Originator listed on exchange	Yes	Yes	No	Yes	Yes	Yes	Yes
Rated Originator/Borrower	No	No	No	No	No	No	No
Rated Transaction	No	Yes	No	Yes	No	No	Yes

Chart 6: Singapore – Stage 2 – Originator/Borrower Analysis
Source: Author's compilation

Stage 3 (2003/2004) – Originator/Borrower Analysis (Chart 7):

After 2002 being a strong year for Real Estate Securitisations, 2003 and especially 2004 (with already 3 transactions in April) followed this trend. HypoVereinsbank's Singapore (HVB) branch became the dominating arranger of Real Estate Securitisation transactions in Singapore. This was supported by HVB's role as an innovator in this market.

Also, CapitaLand once again was the leading borrower under Real Estate Securitisation transactions. In this stage CapitaLand was only the borrower and not the originator of the assets because the underlying assets were not the real estate, but mortgage loans over the real property. Essentially the company did not sell their real estate assets, but the bank that arranged and originated the transaction sold the mortgage loan.

The latest trend in this stage was that REITs were involved in the latest stage of transactions. This can once again be attributed to CapitaLand, who was also the innovator in Real Estate Equity Securitisation in Singapore, as they issued the first two REITs (one retail, one office). The newly issued REIT's used Real Estate Securitisation for acquiring their first real estate assets.

Apart from the REITs, real estate developers still kept going strong as borrowers and originators. Another development that took place in the third stage was that Government-Linked Corporations played a more insignificant role than in the previous stages. This can be attributed to the REITs that are publicly held as well as other public companies gaining faith in the market. There was even one deal initiated by a non Singapore company, namely Siemens.

In the third stage rating became a prime feature in Real Estate Securitisation deals, as six out of seven transactions are rated. This will also be the trend going forward, as international investors will only be willing to invest into securities if those carry a rating.

Stage 3 (2003 - 2004): Originator/Borrower Analysis

Originator/Property/Transaction Name	Cobalt Asset Management	Silver Maple Investment	Ngee Ann City	Riviera Investment	CapitaRetail Singapore	Silver Loft Investment	Arwen Investment
<u>Issuance</u>							
Transaction Name (=SPV Name)	Cobalt Asset Management	Silver Maple Investment Corporation	Orchard Square Capital Assets Ltd.	Riviera Investment Ltd.	CapitaRetail Singapore Ltd.	Silver Loft Investment Corporation Limited	Arwen Investment Corporation Limited
Issue Date	February 2003	June 2003	August 2003	September 2003	February 2004	March 2004	April 2004
Arranging Bank	HVB-Singapore	HVB-Singapore	DBS Bank	Standard Chartered Bank	BNP-Singapore	HVB-Singapore	HVB-Singapore
<u>Originator/Borrower</u>							
Name	M+W Zander/Siemens	CapitaLand (CapitaMall Trust)	Metro Holdings (seller) / ERGO (sponsor)	Fraser & Neave (Centrepoint Properties)	CapitaLand	CapitaLand (CapitaCommercial Trust)	CapitaLand Residential
Type	Real Estate Developer/Corporate	REIT/ Real Estate Investor	Insurance Company	Real Estate Developer	Real Estate Developer	REIT/ Real Estate Investor	Real Estate Developer
Ultimate Holding Company	Private/ Public	Public Trust	Public	Public Company (Fraser & Neave)	Government-Linked Corporation	Public Trust	Government-Linked Corporation
Originator listed on exchange	No/ Yes	Yes	Yes	No	Yes	Yes	Yes
Rated Originator/Borrower	No/ Yes	Yes	No	No	No	Yes	No
Rated Transaction	Yes	Yes	No	Yes	Yes	Yes	Yes

Chart 7: Singapore – Stage 3 – Originator/Borrower Analysis
Source: Author's compilation

Summary

Two Government-Linked Corporations became the innovators in the dawn of the Real Estate Securitisation market in Singapore. DBS Bank became the dominating arranger in the dawn of the market, while DBS Land/CapitaLand became the dominating originator throughout all three stages of the evolution of Real Estate Securitisation in Singapore.

While DBS Land/CapitaLand was dominating throughout the whole development, DBS Bank only was active in the first half of the evolution. The unique standardised structure that they created during that time was tailored towards the originators' needs, however it was neither off-balance sheet qualified nor was it internationally recognized. This is why in the second half of the evolution was dominated by another innovator: HypoVereinsbank Singapore. This arranger brought international perspective into the transactions without losing the unique Singapore 'flavour'. This led to the development that deals were rated and partly denominated in another currency. In the beginning (stage 1) no transaction was rated, in the last stage (stage 3) nearly all transactions were rated.

The primary originator category was Real Estate Developers, as the biggest developer in Singapore DBS Land/CapitaLand was the dominating originator. However, especially in the first stage corporates were originators, which can be related to the real estate and financial market situation in 1999. Over time this changed. While developers kept staying strong, the newer wave of borrowers comes from the Real Estate Investor category and in the last stage out of the Singaporean REIT market. This will be a trend that will keep on going strong in the future, as newly issued REITs will rely on Securitisation as an acquisition financing vehicle. So REIT Securitisation is actually fuelling the growth of Real Estate Securitisation.⁵²⁸

⁵²⁸ Singapore developers want to free up funds for higher-yielding investments. Part of their divestment strategy is to issue REIT shares in exchange of their own shares and thereby divest their real estate holdings. Developers want to move away from being an asset rich real estate holding company to an asset light real estate developing and managing company. In order for the trusts to be able to acquire those properties, they need to get high volume long-term financing.

4.2.4.2 Assets

The Asset Analysis goes into detail on the assets that are securitised in the observed Real Estate Securitisation transactions. As Chart 8, Chart 9 & Chart 10 show, the Asset Analysis is made up of the type of asset backing the transaction, the cash flows generated from the asset that are supporting the bonds and the security of the investors over the asset or additional collateral respectively. Since all of the underlying assets or the collateral is real property, the property name as well as the type of real estate (Office, Residential, Retail) and the category (Investment, Development or Corporate Property – Construction or Acquisition Financing) are analysed.

Stage 1 (1999/2000) – Asset Analysis (Chart 8):

The assets that were sold in the first stage were mainly physical assets (prime real estate – ‘trophy’ properties), except for one transaction that incorporated sales receivables from a yet to be finished residential development project. Hence, except for this one transaction, all deals were supported by cash flows resulting out of the physical assets, i.e. rental cash flows and future property sales proceeds. The real property usually functioned as a security to the investors of the bonds except for the case of the residential development, where an additional mortgage over the property functioned as additional collateral.

The types of real estate were predominantly Office (3 transactions), then Residential (2), then Retail (1) and one mixed use property – Office & Retail. The property category – which stands for the distinction of Corporate, Investment or Development Property – was dominated by Investment and Corporate Property. The reason why Corporate Property was so strong lies in the fact that corporates in desperate need to lower their gearing ratios sold their non-core assets usually under Sale-Leaseback structures. The development on the Investment Property side can be mainly attributed to CapitaLand being the dominating originator. This Government-Linked Company kept all its real estate developments after completion as investment properties. The specificity of the CapitaLand deals was that all Investment Properties were sold under a Sale-Leaseback structure, where

CapitaLand functioned as the general tenant of the property. This gave additional comfort to the investors.

Stage 2 (2001/2002) – Asset Analysis (Chart 9):

In the second stage condominium sales receivables became a strong asset type. 3 out of 7 transactions were backed by those assets, supported by cash flows from progress payments and secured by mortgages over the underlying properties. All other transactions involved the Securitisation of physical assets, i.e. buildings, of which the Raffles City transaction was an exception. Here not the whole real estate asset was securitised, but a 55% stake in the Asset-SPV that held the property under a share structure. The bond was still supported by rental cash flows and future property sales proceeds as in all other physical asset deals; however, in this case shares in the SPV functioned as a security to the investors and not the property directly.

Whereas in the first stage only single ‘trophy’ properties backed the transaction, the second stage was coined by the introduction of multiple property deals – especially in the residential development category. This is also supported by the fact that development properties became the second strongest property category. Except for the Raffles City deal, which was also more an Investment Property deal than a Corporate Property deal, Investment Property dominated the scene. The reason for Corporate Property not being that strong anymore can be attributed to the different times in 2001/2002 compared to the first stage in 1999/2000. Corporates were not as desperate to sell anymore.

The reason why the development Securitisations could incorporate receivables from progress payments of yet to be built residential development projects is that the risks in terms of non-property market risks are very little. Construction prices are stable and contractor credit risks are manageable.⁵²⁹

⁵²⁹ Cf. Ho (2003), Interview 6, p. 554.

Stage 1 (1999 - 2000): Asset Analysis

Originator/Property/Transaction Name	Neptune Orient Line (NOL)	Century Square Shopping Mall	Robinson Point	Silverlac Investments	268 Orchard Road	Tampines Centre	Six Battery Road	Wilby Residence
Asset								
Type of Asset	Physical Real Estate Asset (Building)	Shares in Asset-SPV that owns the Building	Physical Real Estate Asset (Building)	Receivables from Condominium Sales	Physical Real Estate Asset (Building)	Physical Real Estate Asset (Building)	Physical Real Estate Asset (Building)	Physical Real Estate Asset (Building)
Cash Flow supporting the bond	Rental Cash Flows, Future Property Sales Proceeds	Rental Cash Flows, Future Property Sales Proceeds	Rental Cash Flows, Future Property Sales Proceeds	Cash Flows from Progress Payments	Rental Cash Flows, Future Property Sales Proceeds	Rental Cash Flows, Future Property Sales Proceeds	Rental Cash Flows, Future Property Sales Proceeds	Rental Cash Flows, Future Property Sales Proceeds
Collateral/Security	Real Property	Real Property	Real Property	Mortgage	Real Property	Real Property	Real Property	Real Property
Property Name	NOL Headquarter @ Alexandra Road	Century Square Shopping Mall	Robinson Point	Clearwater	268 Orchard Road	Tampines Centre	Six Battery Road	Wilby Residence
Type of Real Estate	Office (Headquarter)	Retail	Office	Residential	Office	Office / Retail	Office	Residential
Category	Corporate Property (Sale-Leaseback)	Investment Property	Investment Property (Sale-Leaseback)	Development Property	Investment Property (Sale-Leaseback)	Corporate Property (Sale-Leaseback)	Investment Property (Sale-Leaseback)	Corporate / Investment Property

Chart 8: Singapore – Stage 1 – Asset Analysis
Source: Author's compilation

Stage 2 (2001 - 2002): Asset Analysis

Originator/Property/Transaction Name	Raffles City	Peridot Investments	Wisma Atria	Jasmine Investment	Compass Point Shopping Centre	Capital Square	Aragorn Investment
Asset							
Type of Asset	Shares in Asset-SPV (55% of the Building)	Receivables from Condominium Sales	Physical Real Estate Asset (Building)	Receivables from Condominium Sales	Physical Real Estate Asset (Building)	Physical Real Estate Asset (Building)	Receivables from Condominium Sales
Cash Flow supporting the bond	Rental Cash Flows, Future Property Sales Proceeds	Cash Flows from Progress Payments	Rental Cash Flows, Future Property Sales Proceeds	Cash Flows from Progress Payments	Rental Cash Flows, Future Property Sales Proceeds	Rental Cash Flows, Future Property Sales Proceeds	Cash Flows from Progress Payments
Collateral/Security	Real Property (via shares)	Mortgage	Real Property	Mortgage	Real Property	Real Property	Mortgage
Property Name	Raffles City	Sun Haven, Palm Grove and The Loft.	Wisma Atria Shopping Centre	Amaranda Garden, Buttenworth 8, The Edgewater	Compass Point Shopping Centre	Capital Square	The Waterina
Type of Real Estate	55% Stake in Raffles City: Office (HQ), Retail, Hotel	Residential	Retail	Residential	Retail	Office	Residential
Category	Corporate/ Investment Property	Development Property	Investment Property	Development Property	Investment Property	Investment Property	Development Property

Chart 9: Singapore – Stage 2 – Asset Analysis
Source: Author's compilation

Stage 3 (2004 - 2004): Asset Analysis

Originator/Property/Transaction Name	Cobalt Asset Management	Silver Maple Investment	Ngee Ann City	Riviera Investment	CapitaRetail Singapore	Silver Loft Investment	Arwen Investment
Asset							
Type of Asset	Credit Tenant Lease	Mortgage Loan (Single Borrower CMBS)	Shares in Asset-SPV (27% of the Building)	Receivables from Condominium Sales	Mortgage Loan (Single Borrower CMBS)	Mortgage Loan (Single-Borrower CMBS)	Receivables from Condominium Sales
Cash Flow supporting the bond	Rental Cash Flows from Long-Term Lease with Siemens	Interest and Principal determined by Rental Cash Flows	Rental Cash Flows, Future Property Sales Proceeds	Cash Flows from Progress Payments	Interest and Principal determined by Rental Cash Flows	Interest and Principal determined by Rental Cash Flows	Cash Flows from Progress Payments
Collateral/Security	Credit Tenant/ Mortgage	Mortgage	Real Property (via shares)	Mortgage	Mortgage	Mortgage	Mortgage
Property Name	Siemens Center	Junction 8 Shopping Center, Tampines Mall, and Funan The IT Mall	27% stake in Ngee Ann City Shopping Centre	Cote D'Azur	Riverdale Mall, Lot One Shoppers Mall, Bukit Panjang Plaza	Capital Tower, 6 Battery Road, StarHub Centre, Robinson Point, Bugis Village, Golden Shoe	The Botanic on Lloyd and The Imperial
Type of Real Estate	Office	Retail	Retail	Residential	Retail	Office/ Mixed Use/ Car Park	Residential
Category	Construction Financing (Development Property)	Acquisition Financing	Investment Property	Development Property	Acquisition Financing	Acquisition Financing	Development Property

Chart 10: Singapore – Stage 3 – Asset Analysis

Source: Author's compilation

Stage 3 (2003/2004) – Asset Analysis (Chart 10):

The third stage was stamped by strong innovation with respect to assets backing Real Estate Securitisation transactions in Singapore. Two new asset types were introduced in 2003 – both were not physical real estate assets: Credit Tenant Leases and Single Borrower Mortgage Loans.

In the case of the Credit Tenant Lease Securitisation, the originator used the rental cash flows from a long-term lease with Siemens to fund the property's construction. The lease with Siemens, a firm with investment grade credit functioned as security to the investors. However, to support the transaction with additional collateral a mortgage over the property (Siemens Center) was transferred to the SPV.

The second new asset type also involved a mortgage over the underlying properties. There were three transactions – all initiated by CapitaLand – that were structured as Single-Borrower Commercial Mortgage-Backed Securities (CMBS). In all cases the issuing vehicle granted mortgage loans to the borrowers, which service the bonds with interest and principal payments. Interest and principal from the mortgage loans were determined by the rental cash flows originating from the underlying properties. In all cases the loan/loan facilities represented the assets of the issued bonds and the mortgage over the properties served as a security to the investors. In all three cases the borrowed funds were used as acquisition financing for the underlying properties.

Mortgages as security or additional collateral dominated the third stage of the market; real property secured the transaction only in one case (Ngee Ann City). In this stage retail and residential were strong real estate types, while the category was dominated by construction (for development property) as well as acquisition financing (for investment property).

Summary

Physical real estate assets, i.e. buildings were the assets in the first stage. This incorporated that the real property was transferred to the SPV to the security of the investors and that the bonds were serviced by the cash flows from rental income and future sales proceeds. As this was a structure

unique to Singapore and tailored towards Singapore originators and investors, it was not a global product. As the market oriented itself more towards global investors, the structures were innovated and new assets evolved that securitised cash flows derived from real estate: Receivables from condominium sales, Credit Tenant Leases and Single Borrower Mortgage Loans became new asset types over the course of the evolution.

While in the beginning corporate property was strong, it did not play a role in the later stages. This mirrors the same trend as in the originator analysis. As originators and assets are linked the same reasoning as in the originator analysis counts. The corporates that owned property needed to lower their gearing. Hence, they wanted to sell their corporate property. Since that was not possible in an outright sale, the companies used Real Estate Securitisation instead.

Overall Investment Property was the strongest category before Development Property. The reason was that most developers kept their developments that then became investments. A property only counts as Development Property as long as it is developed and not completed – once it is completed it becomes investment property. As in the beginning only completed trophy properties were securitised, Development Property did not play a big role. However, as the market evolved and investors got comfortable with Real Estate Securitisation structures Development Property grew stronger, driven by the use of the concept as an alternative construction-financing vehicle. Apart from construction funding the concept was also used as acquisition financing – especially Singapore REITs used the vehicle for their initial property acquisitions.

While in the first stage office was the real estate type dominating Real Estate Securitisations, in the second and third stage residential and retail became dominant. Residential property was a strong real estate type because Real Estate Securitisation was a good vehicle to refinance condominium developments. The reason why retail properties were strong lay within the yields achievable in retail properties compared to office properties in Singapore. Once the first Real Estate Securitisations were not

considered off-balance sheet any more, it was not favourable to securitise office properties anymore, due to low yields.⁵³⁰

4.2.4.3 Motives

The Motive Analysis answers the question of why a company should perform a Real Estate Securitisation exercise. Looking at the motives one can see the different motivations of companies over different stages of the market. It mirrors the evolution of the Real Estate Securitisation market in Singapore. The Motive – Analysis fulfils two tasks (see Chart 11, Chart 12 & Chart 13):

1. It categorizes the use of Real Estate Securitisation (as a divestment/monetization vehicle or as innovative financing instrument).
2. It demonstrates the motives for doing such a transaction.

Stage 1 (1999/2000) – Motive Analysis (Chart 11):

Looking at the first stage it becomes evident that one of the primary motives for originators was to sell their physical real estate asset, while keeping a hand on it and its potential future appreciation.

All but one transaction was initiated in order to liquefy/monetize the asset. Hence, Real Estate Securitisation was primarily used as a divestment and monetization vehicle,⁵³¹ instead of an innovative financing vehicle. To the pressured real estate developers, Real Estate Securitisation was a way to sell the asset at times where nobody could afford to buy the properties at such high prices. So, Securitisation filled the gap in time, where sales objectives could not be achieved otherwise.⁵³²

The primary two motives in the first stage were ‘Sale to generate liquidity and liquefy/monetize on the asset’ and ‘Balance Sheet Management / Off-

⁵³⁰ While property yields in Singapore were generally low, on average, industrial and retail properties provided higher rental yield than office and residential properties. In particular, the rental yield of retail properties over a 14-year period was relatively high with an average of 6.7%. The average yield for office and residential properties over the period was around 4.5-4.7%. Cf. Ooi, *et al.* (2000).

⁵³¹ The difference between divestment and monetization is that in the earlier case the intention is to really sell the asset and give up the control over it, while in the later case the originator intends to unlock the capital tied up in the property without giving up the control over it – i.e. monetizing on the property.

Balance Sheet Financing’. As mentioned before those motives were driven by the development in the real estate as well as the financial markets in Southeast Asia after the Asian Financial Crisis. Gearing of real estate developers was high as were interest rates at the time. The only way to lower gearing was to monetize balance-sheet assets. In fact ‘Balance Sheet Management’ was the biggest motivation for companies in the first stage of the market.⁵³³

There were three cases (marked bold on the table), where Real Estate Securitisation was intended to be used as a divestment vehicle, but eventually it turned out that it was purely an innovative way of financing properties in an off-balance sheet manner in times where interest rates were high and traditional loan commitments were low. All three transactions were originated by DBS Land (today CapitaLand). Those three transactions first were considered off-balance sheet divestments and later on-balance sheet financings.

One odd case was Wilby Residence, because Tan Chong International was forced to sell the development by the Singapore Government. Under Singapore law foreign developers have to sell their real estate developments within two years of completion. Hence, the primary motive for Tan Chong – since the property was located directly beside the company’s car showroom – was to sell the building, while keeping the option to control and buy it back at a later stage.

Another special case was Silverlac Investments, because here future receivables from condominium sales were securitised to refinance the acquisition and construction of the project. The motives in this case were ‘Balance Sheet Management’ and ‘Sale of the Asset’ to unlock the fixed value of the company’s development. Moreover cheaper construction funding from a different source than a bank was also an important motive.⁵³⁴

⁵³² Cf. Sing (2003), Interview 5, p. 554.

⁵³³ Cf. Sing (2003), Interview 5, p. 554.

⁵³⁴ Cf. Ho (2003), Interview 6, p. 554.

Stage 1 (1999 - 2000): Motive Analysis

Originator/Property/Transaction Name	Neptune Orient Line (NOL)	Century Square Shopping Mall	Robinson Point	Silverlac Investments	268 Orchard Road	Tampines Centre	Six Battery Road	Wilby Residence
Real Estate Securitisation Eas disinvestment / monetization vehicle É as innovative financing tool Motives Sale to generate liquidity/liquify/montetize on the asset Balance Sheet Mgmt / Off-Balance Sheet Financing Diversification of Funding Sources Longer term financing Higher LTV Cheap Financing Other	X	X	X		X	X	X	X
	1	2	2	2	2	1	2	1
	2	1	1	1	1	2	1	2
	N/A	4	3	5	3	N/A	3	N/A
	N/A	5	4	N/A	4	N/A	4	N/A
	N/A	3	N/A	4	N/A	N/A	N/A	N/A
	N/A	N/A	N/A	3	N/A	N/A	N/A	N/A
								Forced to sell development by Singapore Government

Chart 11: Singapore – Stage 1 – Motive Analysis
Source: Author's compilation

Stage 2 (2001/2002) – Motive Analysis (Chart 12):

Whereas in the first stage Real Estate Securitisation was primarily used as a divestment and monetization vehicle, the second stage displayed a shift towards its use as an innovative financing tool. Still there were two transactions that were pure divestments and two transactions that were divestments and innovative financings at the same time, but especially the residential sales receivables transactions (Peridot, Jasmine, Aragorn) used the construct as an innovative development-financing instrument.

The two interesting cases with regard to the variability of the Real Estate Securitisation concept were Wisma Atria and Capital Square. Both transactions functioned as real estate asset divestments for the originators. However, at the same time the vehicle also functioned as an acquisition-financing instrument for the de facto buyer of the properties. ERGO insurance was the main investor in the junior tranches and became the sponsor of this transaction that gave ERGO the option to call the transaction and buy the outstanding senior and junior bonds in order to fully acquire the property at a later stage. So, for ERGO this structure proved to be an innovative financing. The motives for the originators were clearly to sell the assets and to use the proceeds to improve their balance sheets.

The three residential development transactions that used Securitisation as an innovative development financing also had similar motives. They sold their condominium sales receivables in order to get cheaper funding for their development projects. Instead of going to a bank to get land acquisition and construction financing, the companies sold receivables derived from future progress payments of a portfolio of condominium buyers. Essentially they sold pooled consumer receivables to the capital markets. Backed by sound contractual agreements and secured by a mortgage over the properties, the investors were comfortable with the risk and accepted low margins that lead to low funding costs for the developers. So cheap financing became a dominant motivation for choosing Real Estate Securitisation. Above that diversification of funding sources and the chance to bring forward future development proceeds in order to unlock capital was very attractive for residential developers.

Stage 2 (2001 - 2002): Motive Analysis

Originator/Property/Transaction Name	Raffles City	Peridot Investments	Wisma Atria	Jasmine Investment	Compass Point Shopping Centre	Capital Square	Aragorn Investment
Real Estate Securitisation É as disinvestment / monetization vehicle É as innovative financing tool Motives Sale to generate liquidity/ liquify/monetize on the asset Balance Sheet Mgmt / Off-Balance Sheet Financing Diversification of Funding Sources Longer term financing Higher LTV Cheap Financing Other	X	X	X	X	X	X	X
	1	4	1	1	1	1	3
	2	5	2	4	2	2	4
	N/A	3	3	3	N/A	3	2
	N/A	2	N/A	5	N/A	N/A	5
	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	N/A	1	N/A	2	N/A	N/A	1
			ERGO was Sponsor de facto acquiring the property, while using Real Estate Securitisation as an innovative financing vehicle			ERGO was Sponsor de facto acquiring the property, while using Real Estate Securitisation as an innovative financing vehicle	

Chart 12: Singapore – Stage 2 – Motive Analysis
Source: Author's compilation

Stage 3 (2003/2004) – Motive Analysis (Chart 13):

In the third stage of the market, Real Estate Securitisation moved away from being a divestment vehicle to becoming an innovative financing instrument. Even though there were two transactions that used the vehicle as a divestment as well as an innovative financing, most deals just used the concept as a financing tool, which was also mirrored by the assets (receivables, leases) and collateral (mortgages) used in these transactions.

The 'Diversification of Funding Sources' was a very important motive in all transactions that used Real Estate Securitisation as an innovative financing tool. Real estate developers in Singapore traditionally relied strongly on the banking market for funding. They became scared in 1999, when banks lowered their real estate debt exposures. Thus, they realized that in the following years they would need to hedge that risk by diversifying their funding sources.

'Cheap Financing' became the strongest motive in the third stage of the market. Not only represented the capital market another funding source for developers, it also became a market for affordable financing – especially for residential construction funding.

There were many different transactions in this stage. The two REIT financing transactions Silver Maple and Silver Loft became a novelty in the market because they represented acquisition financing for the REITs properties before the trusts were issued. Another acquisition financing case was CapitaRetail, in which CapitaMall Trust eventually has the option to buy three properties that were spun-off by CapitaLand into three separate privately placed trusts that financed this acquisition by issuing CMBS. This actually represents a way of deferring an acquisition by parking it in trusts financed under a Securitisation structure. For CapitaMall trust this was the best way to do it, since the REIT is an investor in the junior tranche and has an option to buy the properties at a later stage.

The Ngee Ann City Securitisation was once again sponsored by ERGO. It had the same structure and the same motivation as the previous ERGO transactions in the second stage.

Stage 3 (2004 - 2004): Motive Analysis

Originator/Property/Transaction Name	Cobalt Asset Management	Silver Maple Investment	Ngee Ann City	Riviera Investment	CapitaRetail Singapore	Silver Loft Investment	Arwen Investment
Real Estate Securitisation Eas disinvestment / monetization vehicle E as innovative financing tool	X	X	X X	X	X X	X	X
Motives Sale to generate liquidity/ liquify/montetize on the asset Balance Sheet Mgmt / Off-Balance Sheet Financing	N/A 5	N/A N/A	1 2	3 4	1 2	N/A N/A	4 5
Diversification of Funding Sources	4	2	3	2	3	2	3
Longer term financing	3	3	N/A	5	N/A	3	2
Higher LTV	2	N/A	N/A	N/A	N/A	N/A	N/A
Cheap Financing	1	1	N/A	1	N/A	1	1
Other		Acquisition Financing for CapitaMail Trust	ERGO was Sponsor de facto acquiring the stake in the property, while using Real Estate Securitisation as an innovative financing vehicle		CapitaLand for its REIT CapitaMail Trust parked the assets in this Securitisation structure until yields were high enough for the Trust	Acquisition Financing for CapitaCommercial Trust. The high size of the transaction required an innovative structure.	

Chart 13: Singapore – Stage 3 – Motive Analysis
Source: Author's compilation

So, all in all the third stage showed that Real Estate Securitisation is a universal instrument that can be tailored to suit the originators' and borrowers' needs and motives. In all four acquisition-financing cases (Silver Maple, Silver Loft, CapitaRetail and Ngee Ann City) the financing of the acquisition of property was the primary goal of the transaction, but the mixture of additional motives made all transactions unique and determined their structures.

Summary

In the beginning (first half of the evolution) the use of Real Estate Securitisation as a divestment and asset monetization vehicle was the originators' focus, this changed during the second half, where Real Estate Securitisation was primarily used as an innovative financing tool. Also depending on the use of Real Estate Securitisation, the originator and the type of asset chosen, the motives can be grouped and they change from one group to another.

Under the corporate and developer **asset divestments transactions** involving physical real estate assets, the motives were the creation of liquidity for the originator by monetizing the asset and balance sheet management by getting the asset off the balance sheet. For the deals that were meant to be divestments as well as financing the motives also included diversification of funding sources and long-term financing. Especially for the ERGO transactions the motives were to arrange innovative acquisition financing that offered them off-balance sheet character and options to call the transaction.

Under the **innovative financing deals** the motives varied primarily by asset type. For the development financing by Securitisation of sales receivables, it was a quick way to refinance the project. The motives were cheap financing, diversification of funding sources and the opportunity to liquefy the asset by bringing forward cash flows from deferred payment schemes. For the CMBS deals the motives were cheap financing, diversification of funding sources and longer term financing.

Overall the following conclusions can be derived:

- Higher LTV was not a motive in all transactions, but one (Credit Tenant Lease).⁵³⁵
- Cheap financing became more important as the market evolved.
- Sale and monetization of assets was very high motive under the asset divestment deals in the beginning of the market.
- Balance-Sheet Management and off-balance sheet financing were important motives throughout all transactions.
- The opportunity to bring forward development proceeds was a strong motive for using Real Estate Securitisation as development financing. Thereby the developers intended to monetize on the asset and to reduce money/capital tied up in projects in order to use the money for acquiring new land for the companies' landbanks.
- Longer term financing was a motive for all transactions using the vehicle as innovative financing.⁵³⁶
- Different transactions had different motives that were dependent on the different originators, assets and transaction structures.

4.2.4.4 Transaction Schemes

The Transaction Schemes Analysis goes into detail on the structural features used in Real Estate Securitisation structures in Singapore. The change in features lead to a change in structures fuelled by a change in motives and utilised assets – so structural features and transaction structures mirrored the evolution of Real Estate Securitisation as it went through three stages of development.

The analysis is divided into 5 different categories describing each individual transaction structure: Issued Notes (parameters of issue), Placement (private or public, on-shore or off-shore), Embedded Options (yes or no, call options or put

⁵³⁵ In the Singapore context a higher Loan-to-Value was not a driving motive as often 35 to 40% of the bonds were usually held by the originators. So only 60 to 65% Loan-to-Value was achieved. Cf. Ooi, *et al.* (2002), p. 78.

⁵³⁶ Whereas the banking market only offered 3-5 year funding, the Real Estate Securitisation transactions offered 7-10 year funding. Cf. Ooi (2003), Interview 4, p. 554.

options, exercised or not), Profit Sharing (preference shares stapled to the bonds or not) and Off-Balance Sheet treatment (on- or off-balance sheet financing).

The emphasis in this analysis lies on features unique to Singapore transactions – embedded options and profit sharing. This has not been observed in any other Asset-Securitisation market so far. The applicability and success of those features will infer if those features might apply to other yet to be developed Real Estate Securitisation markets.⁵³⁷

Stage 1 (1999/2000) – Structure Analysis (Chart 14):

The issuance volume in the first stage ranged from S\$ 100 m (Silverlac) to S\$ 878 m (Six Battery Road) with the majority of the transactions being around S\$ 200 m. The reason for this lies in the fact that only single properties were securitised, which limits the maximum size of the transaction to the value of the underlying property.

All notes were denominated in Singapore Dollars and the SPV's were all incorporated on-shore.⁵³⁸ The interest payment was set up as a fixed rate and the amortization was a bullet amortization at maturity of the bonds. The bonds maturities ranged from 3 years for the residential condominium sales receivables Securitisation to 10 years for the office property Securitisation. Even though there were 2 deals with a 7-year term, the majority of the transactions mature after 10 years. The development deals always have a short term, since they function as construction financing, which is dependent on the timeframe of the construction that is usually not longer than 5-6 years.

The typical structure in the beginning of the market incorporated only two tranches: a senior and a junior tranche, where the junior tranche was sub-

⁵³⁷ For a more in-depth description of transaction structures confer Heng (2003), Interview 7, p. 554.

⁵³⁸ This counts for all transactions in all three stages. The reason for this was that Singapore made it possible to structure the SPV's tax neutral and the government incited favourable tax treatments for bond investors – especially for offshore investors. Singapore wanted to create a favourable Asset-Securitisation environment in Singapore that let the market develop onshore.

ordinate to the senior tranche. In one case (Century Square Shopping Mall) there was also a Mezzanine tranche in between the senior and junior. The junior tranche held all the risk and was a structural buffer for the capital of the senior bondholders. Hence, the junior bondholders held the equity position in the real estate even though they owned bonds, i.e. debt and not equity. This structure until now has been unique in the global Securitisation markets. In exchange for the associated risk the junior bondholders were usually granted a call option that allowed them to collapse the structure,⁵³⁹ as well as preference shares that were attached to the junior bonds to share the participation in the upside of the property. This led to the result that in all but one transaction the originator, i.e. the previous owner of the building invested in the junior bonds. This gave the senior bondholders a certain comfort because the originator best knew all the risks associated with the property. However, for the originator this also had accounting implications.

In the first stage all bonds were placed onshore and mostly in private transactions (not listed on any exchange). The reason was that the market was still in a pre-mature stage – investors, originators, arrangers and regulators did not have any experience with this product. Local investors, however, got comfort from knowing the properties as well as the originators. This facilitated the placement and the deal structure. As mentioned earlier, the deals therefore did not need to be rated and the structure became more flexible and tailored to the needs of the local investors. The only three deals that were placed publicly, at least partly over the exchange were the DBS Land deals. The reason for the public placement was that the company wanted to sharpen its profile with private investors (non-institutional clients) and hence placed a retail tranche (to retail customers) over the exchange. The gross of those deals were also placed in private placements with insurances, banks, asset managers and corporates. Another reason for the retail tranche was that the developers wanted to put the bond issue on a

⁵³⁹ The junior bondholders could call the transaction and pay off the senior bondholders at a pre-defined price, or they could make the SPV sell the property to a third party, pay back all bonds and distribute the profit to preference share holders. If the junior bondholders did not exercise the call option, the SPV would be allowed to sell the property to a third party, pay back the bonds and distribute the profit to the preference share holders.

broader investor basis and get retail investors interested in Singapore property securities. This paid off for CapitaLand, when they first issued a Real Estate Investment Trust (REIT).

Looking at embedded options it becomes evident that they were a distinct structural feature in the first stage of transaction structures. They were incorporated in all transactions that securitised the physical real estate asset. The only transaction without options was the sales receivables transaction. The options embedded were call options for the junior tranche holders. Additionally, four transactions incorporated put options for senior bondholders that were able to collapse the structure and put the property back to the originator at a pre-defined price. Since those were contingent liabilities for the originators those features had accounting consequences. Whereas the auditors under Singapore GAAP first considered the transactions off-balance sheet, they became on-balance sheet at a later stage, when the Singapore accounting environment moved closer towards international accounting standards. Then the put options were considered liabilities and there was not any transfer of risk associated with the property. Added to the fact that the ownership was also not 100% transferred (due to junior tranche) and control could also be taken over (by call options), the properties and the bonds had to be reconsolidated.

As mentioned above additional upside in the properties – either by surplus cash flow or by appreciation at sale – could be shared beneath the bondholders (especially beneath the junior bondholders). This was done by preference shares that were stapled to the bonds. The feature was unique to Singapore and has not yet been duplicated anywhere. Six out of eight transactions took advantage of this feature.

The strong participation of the originators in the junior tranches and the use of preference shares and options stapled to them put the transactions under enormous scrutiny by accountants. Especially the put options were a ‘thorn in the accountants side’. After the Enron scandal those structures are not considered off-balance sheet anymore.

Stage 1 (1999 - 2000): Structure Analysis

Originator/Property/Transaction Name	Neptune Orient Line (NOL)	Century Square Shopping Mall	Robinson Point	Silverlac Investments	268 Orchard Road	Tampines Centre	Six Battery Road	Wilby Residence
Issued Notes Size (Sing Dollar) Size (Other Currency) Fixed or Floating Interest rate Maturity % Senior % Mezzanine % Junior Originator Participation in Junior Tranche Offshore SPV	S\$ 185 m N/A fixed 10 years 70% 30% Yes No	S\$ 200 m N/A fixed 7 years 50% 35% 15% Yes No	S\$ 193 m N/A fixed 10 years 65% 35% Yes No	S\$ 100 m N/A fixed 3 years 100% No No	S\$ 184 m N/A fixed 10 years 65% 35% Yes No	S\$ 180 m N/A fixed 7 years 60% 40% Yes No	S\$ 878 m N/A fixed 10 years 63% 37% Yes No	S\$ 146 m N/A fixed 10 years N/A N/A Yes No
Placement Private (No Listing on Exchange) Public (Listing on Exchange) Solely Placed onshore Retail Tranche (sold to private investors)	X Yes	X Yes	X Yes X	X Yes	X Yes	X Yes X	X Yes X	X Yes
Embedded Options Incorporated into transaction Put Option Call Option Buy-back Timeframe (from Year to Year) Options Exercised If yes, why	Yes No Yes 3-5 No	Yes No Yes 3-5 Yes (Call) Property sold at profit	Yes after year 10 Yes 4-10 Yes (Call) Accounting Treatment	No	Yes after year 10 Yes 4-10 Yes (Call) Accounting Treatment	Yes from year 6 on Yes No	Yes after year 10 Yes 4-10 Yes (Call) Accounting Treatment	Yes No Yes 4-10 Yes (Call) Expectation of increasing property prices
Profit Sharing Additional Upside shared with bondholder - Preference Shares	Yes	Yes	Yes	No	Yes	Yes	Yes	No
Off Balance Sheet	Yes	Yes	First Yes, later No	No	First Yes, later No	First Yes, later No	First Yes, later No	No

Chart 14: Singapore – Stage 1 – Structure Analysis
 Source: Author's compilation

Stage 2 (2001/2002) – Structure Analysis:

The second stage of the Singapore Real Estate Securitisation market was coined by two things: internationalisation (bonds denominated in foreign currency and placed off-shore) and structural innovations (including off-balance sheet treatment).

Apart from innovation the second stage also brought forward bigger transaction sizes. For one this happened because multiple property deals entered the market, but also because the properties securitised became bigger. Above that investors became more comfortable with the assets, the market and the structures and hence they were more recipient for larger deals. The biggest issuance by far was Raffles City, which is a huge mixed use 'trophy property' in the heart of Singapore. The average deal size also increased to around S\$ 350 m.

There were two important international issuances: Jasmine and Aragorn Investment – both had a tranche denominated in US Dollars. Moreover both had floating rate interest as well as fixed rate interest. The reason for this is that international investors prefer floating rate interest, whereas in Singapore nearly all transactions carry fixed rate interest.

The internationalisation led to structural innovations, because now that bonds were also placed offshore, the structures became more international. This incorporated that the transactions were rated by rating agencies on the one side, but also that they had more than two tranches on the other side – subordination by usage of different rated tranches (from 'AAA' to unrated). The remaining transactions kept holding on to the standardised senior/junior tranche structure instituted by DBS Bank in the first stage.

The majority of transactions were still placed privately, but the gross of the transactions were not solely placed onshore anymore – 5 out of 7 were also marketed internationally.

There were three transactions (Wisma Atria, Compass Point, Capital Square) that followed the standardised structure (incl. embedded options) and one transaction that was also structured as the transactions in the first stage, but without embedded options (Raffles City). While the primary

intention in previous deals of the first stage was to park the property instead of divesting it, in the case of Raffles Holding the divestment and the concentration on core business were the primary drivers for adapting the earlier structures. Moreover, the interest rate on the junior bonds of this deal was part of the reason why this Securitisation was different from the ones in the first stage. In other Securitisations one found that the property yields were much lower as in the case of Raffles, and after having paid the senior bonds the structure ended up with a yield that was not effective enough to attract junior bondholders. So in most cases this was the major reason why the original owner, i.e. the originator had to buy back the junior bonds. Hence, the new thing about these transactions of the second stage was that the junior tranche was placed out with third party investors and the originators only took minority stakes in those transactions, if any at all. This made the structure evolve to what the market called a “full blown off-balance sheet Securitisation”.⁵⁴⁰

The residential development Securitisations (Peridot, Jasmine, Aragorn) seemed to follow the same track as the Silverlac transaction in the first stage; however, they were not the same as they were influenced by new structural features (multiple rated tranches) as well as US dollar denominated tranches that were placed with international investors.

The international orientation, the increased number of rated transactions and the structural innovations in the second stage led to an increased off-balance sheet consideration of the issued transactions – 6 out of 7 transactions were attested to be off-balance sheet.

⁵⁴⁰ Cf. Walker (2000).

Stage 2 (2001 - 2002): Structure Analysis

Originator/Property/Transaction Name	Raffles City	Peridot Investments	Wisma Atria	Jasmine Investment	Compass Point Shopping Centre	Capital Square	Aragorn Investment
Issued Notes Size (Sing Dollar) Size (Other Currency) Fixed or Floating interest rate Maturity % Senior % Mezzanine % Junior Originator Participation in Junior Tranche Offshore SPV	S\$ 984.5 m N/A fixed 10 years 70%	S\$ 200 m N/A fixed 6 years tranching	S\$ 451 m N/A fixed 5 years 64%	S\$ 45 m US\$ 144 m both 5 years tranching	S\$ 335 m N/A fixed 10 years 60%	S\$ 505 m N/A fixed 7 years 60%	S\$ 20 m US\$ 101 m both 5 years tranching
Placement Private (No Listing on Exchange) Public (Listing on Exchange) Solely Placed onshore Retail Tranche (sold to private investors)	30% No No X Yes X	N/A No No X No	No (Sponsor= ERGO Insurance) No X No	N/A No X No	Yes (minority stake) No X Yes	No (Sponsor= ERGO Insurance) No X No	N/A No X No
Embedded Options Incorporated into transaction Put Option Call Option Buy-back Timeframe (from Year to Year) Options Exercised If yes, why	No	No	Yes No for Sponsor ERGO at maturity (year 5)	No	Yes No for Junior bond holder Prudential 3-10	Yes No for Sponsor ERGO 3-7	No
Profit Sharing Additional Upside shared with bondholder - Preference Shares	Yes	No	Yes (for ERGO)	No	Yes	Yes (for ERGO)	No
Off Balance Sheet	Yes	No	Yes	Yes	Yes	Yes	Yes

Chart 15: Singapore – Stage 2 – Structure Analysis
Source: Author's compilation

Stage 3 (2003/2004) – Structure Analysis :

The internationalisation that started in stage 2 progressed in stage 3. Five out of seven transactions incorporated tranches that were denominated in a different currency than Singapore Dollars. Three transactions did not even have any Singapore Dollar denominated tranches. Riviera, Silver Loft and Arwen Investment issued only US Dollar notes. In sync with this development all internationally placed transactions either had pure floating rate interest or a mixture of floating and fixed. The US Dollar denominated tranches had pure floating charges. This is a proof of the fact that transaction structures are usually geared towards the investors they target. They cater for the individual investor needs in the region that the notes are sold to.

In this third stage nearly all transactions were tranced by international standards and they were rated by rating agencies. The originators/borrowers usually did not participate in the transactions anymore. There were only two transactions that were outliers in this movement. One was Cobalt Asset Management – a credit tenant lease Securitisation, which had a small size (only S\$ 45 m), only one 'AA' tranche with a fixed rate interest and a 16-year term, which was very unusual for Singapore standards. The other transaction seemed to be a relic from the first and second stage; it was Ngee Ann City, a transaction following the same route as the Wisma Atria and Compass Point deals under the formerly standardised DBS Bank structure. Here again this was a structure geared towards ERGO's needs.

The deals at this stage were primarily publicly placed over an exchange. Except for one transaction they were not solely placed on-shore anymore. In accordance with international standards and the rating agencies' criteria, there were no options embedded in the transactions, except for one special case (CapitaRetail). The structures (except for Ngee Ann City) represented pure bond structures without any upside shared by preference shares. This runs in sync with the motive analysis showing that those transactions were pure financings rather than asset divestments. This is also mirrored by the fact that 5 out of 7 transactions were true off-balance sheet transactions.

Stage 3 (2004 - 2004): Structure Analysis

Originator/Property/Transaction Name	Cobalt Asset Management	Silver Maple Investment	Ngee Ann City	Riviera Investment	CapitaRetail Singapore	Silver Loft Investment	Arwen Investment
Issued Notes							
Size (Sing Dollar)	S\$ 45 m	S\$ 52 m (revolving facility)	S\$ 538 m	N/A	S\$ 329 m	N/A	N/A
Size (Other Currency)	N/A	US\$ 72.1 m	N/A	US\$ 162 m	US\$ 81 m	US\$ 340.6 m	US\$ 155.6 m
Fixed or Floating interest rate	fixed	both	fixed	floating	both	floating	floating
Maturity	16 years	8 years	5 years	3 years	5 years	5 years	4 years
% Senior	1 'AA' tranche	tranch	58%	1 'AAA' tranche	tranch	tranch	tranch
% Mezzanine							
% Junior			42%				
Originator Participation in Junior Tranche	N/A	N/A	Yes - Minority stake (Majority = Sponsor ERGO)	N/A	Yes	N/A	N/A
Offshore SPV	No	No	No	No	No	No	No
Placement							
Private (No Listing on Exchange)							
Public (Listing on Exchange)	X	X	X	X	X	X	X
Solely Placed onshore	Yes	No	No	No	No	No	No
Retail Tranche							
(sold to private investors)							
Embedded Options							
Incorporated into transaction	No	No	No	No	Yes	No	No
Put Option							
Call Option							
Buy-back Timeframe (from Year to Year)					Call Option for CapitaMall Trust 1-3		
Options Exercised							
If yes, why							
Profit Sharing							
Additional Upside shared with bondholder - Preference Shares	No	No	Yes	No	No	No	No
Off Balance Sheet	Yes	No	Yes	Yes	Yes	No	Yes

Chart 16: Singapore – Stage 3 – Structure Analysis

Source: Author's compilation

Summary:

The market started off with smaller transactions that were very unique in their structure. The structure – created by DBS Bank in early 1999 – was tailored towards the needs of the originators (highly geared real estate developers and Singapore corporates) and aimed at the premature Singapore bond market. The structures were not only unique in the way they were structured, but also in the way they evolved. The evolution was mainly carried by local requirements and needs rather than by internationally recognized standards. This allowed the market participants (arrangers/originators/investors) to invent a structure that offered features not observed in Real Estate Securitisation transactions before. Those structures were differentiated by embedded options (put options for investors and call options for originators) as well as by preference shares that helped to distribute potential rental cash flow surpluses or property appreciation at sale. The originators usually invested in the junior tranche (essentially the equity position in the deal) and carried the first loss risk. In exchange they kept the upside of the property and were able to keep control of it. The singular aspect was that this was all created under a bond structure that has not yet been duplicated anywhere else.

One disadvantage of this first structure is that it was not considered off-balance sheet by international standards. This led to 3 transactions being called by DBS Land, but it also fuelled the development of similar structures that could be considered off-balance sheet as observed in stage 2.

Once the market had been opened by those ‘trophy’ property Securitisations, larger transactions incorporating other asset types came to the market bringing with them new structural innovations. This included the residential development sales receivables that became rated and denominated in foreign currencies as well as the single borrower CMBS transactions initiated by CapitaLand for its newly issued REITs. Also a rated Credit Tenant Lease Securitisation transaction was an innovation to the market, whose proceeds were used for construction funding of a property leased out with a long-term lease to Siemens.

4.2.5 Analysis

The Singapore Asset-Securitisation market has been dominated by real estate related transactions since its inception. While this can be partially attributed to the small population of Singapore and the historical makeup of the mortgage market the situation is partly attributed to the ceiling on banks' exposure to the property sector. Following the Asian Financial Crisis, the Singapore government has actively encouraged banks to reduce their exposure to the property sector. This has increased further as the banking market has been consolidated to three domestic banks in recent times. Coupled with the desire for property companies to become asset-light, this has initiated a number of both unrated and rated Real Estate Securitisations in the Singapore market. Transactions have included unique local structures securitising physical real estate assets, Securitisations of preconstruction sales receivables, credit tenant lease deals and standard CMBS type transactions.

The shift towards rated CMBS transactions has created international interest and provided new momentum to the market. International investors are now increasingly looking to Singapore CMBS to achieve highly rated Asian property exposure. In this context, Singapore has also recently witnessed the emergence of CMBS as an acquisition-financing tool for Real Estate Investment Trust (REIT) assets. More activity is expected to be seen in this area as the REIT market develops.⁵⁴¹

However, as the property market picks up and valuations return to previous levels, the unique local Real Estate Securitisation structures out of the first and second stage are also expected to revive.⁵⁴² As demonstrated in this chapter, this type of Securitisation is a unique opportunity for companies, which have large property assets on their balance sheets to unlock and enhance the value of their properties. It offers a set of structural features to the originators depending on their motives. Even though the market got started in times, when the property market was in a trough, property companies are now only looking

⁵⁴¹ Cf. McCarthy, *et al.* (2003), p. 7.

⁵⁴² Cf. Seck (2003), Interview 3, p. 554.

to this sort of divestment vehicle, in times when property values are up.⁵⁴³ This way they can maximize their real estate monetization amount and issue the highest bond volume possible.⁵⁴⁴

The objective behind the Government's promotion of the debt market and the introduction of Asset-Securitisation was to widen the range of financial products available to investors, consistent with *Singapore's efforts to make the city-state a leading financial centre*.⁵⁴⁵

In the following the results of the previous analysis in this chapter will be summarized.

Who was involved?

The Government through its **Monetary Authority** and the **Inland Revenue Service** reformed the regulatory and tax framework for originating and investing in bonds (including Asset-Backed Securities). Especially in Singapore the government plays an important role in the regulatory environment. This was in part driven by the cultural environment. The government and its great credit rating was – through its subsidiaries – a facilitator of the evolution.

The **Government-Linked Corporations (GLC)** were strongly involved in the market and they still play a crucial role in the evolution of the Real Estate Securitisation market in Singapore.⁵⁴⁶ The government through its holdings took the initiative to promote this instrument in the market – for example in the first stage DBS Bank was the leading arranger and DBS Land was the leading originator.⁵⁴⁷ After the merger with Pidemco Land, DBS Land became

⁵⁴³ Property companies were only receptive to use Real Estate Securitisation in the real estate market downturn of 1999 because there was no other way to sell or refinance their real estate asset holdings. Market conditions were very uncertain, it was not easy to find buyers but also prices were way below valuations for outright sales, lower than what could be achieved in a Securitisation transaction.

⁵⁴⁴ Cf. Seck (2003), Interview 3, p. 554.

⁵⁴⁵ Cf. Hein (2004), p. V11.

⁵⁴⁶ Cf. Ooi (2003), Interview 4, p. 554; Cf. Sing (2003), Interview 5, p. 554.

⁵⁴⁷ The successor company of DBS Land, which is today called CapitaLand, is still 61%-owned by the Singapore Government. Cf. Lane (2004).

CapitaLand and is today the most active real estate developer in Singapore's Real Estate Securitisation market.⁵⁴⁸

In the first half of the evolution the development was carried by local arrangers, such as **DBS Bank**. As time went by, the market matured and oriented itself towards international issuances. This led to internationally experienced arrangers building a stronghold in arranging Real Estate Securitisations (e.g. HypoVereinsbank).

At first **Rating Agencies** were not involved. Transactions had a unique structure and investors that were comfortable with the structure and the properties underlying the issuance did not require a rating. The more mature the market became, the more internationally oriented it got, and hence the more transactions became rated. The rating agencies' standard Securitisation templates changed the Singapore structures and the way that Real Estate Securitisations were done since the dawn of the market.

Which assets?

The selection of assets, property types and property categories by originating companies were mainly determined by the underlying properties' performances, i.e. rental yields and asset values.

- **Assets types** included physical income-producing real estate assets (commercial buildings), receivables (from condominium sales proceeds), Credit Tenant Leases and Mortgage Loans (Single-Borrower CMBS).
- **Cash flows** supporting the issued bonds consisted of cash flows resulting from the physical real estate assets (rental cash flows and future sales proceeds), progress payments, lease cash flows from credit tenant, and interest & principal on mortgage loans.
- The transactions were secured by different kinds of **Collateral**: real property, construction mortgages on developing property, credit from tenant & mortgage, mortgage over underlying property.

⁵⁴⁸ Cf. Sing (2003), Interview 5, p. 554.

- **Property types** of underlying real estate were in the first stage predominantly Office properties, then in the second and third stage primarily Residential and Retail properties.⁵⁴⁹
- The underlying **Properties' Categories** were mixed, but dominated by Investment Property and Residential Development Property. In the early stages Corporate Property also partly played a role.

Why do assets qualify?

Assets have to be acceptable to bond investors – coupon rate of the bonds depends on the cash flow generation potential of the underlying properties. Hence, sufficient property cash flows are needed to service the bonds. Moreover the ratio of outstanding bonds vis-à-vis the property value has to be adequate. Thus:⁵⁵⁰

- The poorer the asset quality, the lower the principal amount raised by the bonds, the higher the interest on the bonds and the more difficult it is to place the bonds.
- Only high yielding properties have a high monetization value.
- 'Flagship' office or retail properties as well as pre-sold residential properties in prime locations represent securitisable assets.
- In the case of Real Estate Securitisation whose assets are receivables from yet to be built residential development projects the following criteria has to be fulfilled:
 - The project has to be substantially sold, and
 - its construction cost has to be fixed.
- Only properties with good occupancy and stable income – outperforming the market – fit the Real Estate Securitisation scheme; a minimum level of asset and cash flow quality has to exist.

⁵⁴⁹ Retail assets in Singapore had a history of strong yields due to Singapore being Southeast Asia's leading shopping destination. Hence, the first Real Estate Securitisation transactions were supported by trophy office buildings with long leases and high rental rates as well as prime retail properties with strong yields, i.e. shopping malls on Orchard Road.

⁵⁵⁰ Cf. Sing (2003), Interview 5, p. 554.

- Rental yields have to be strong for properties to be securitised. For low yielding properties this means that either rents have to be raised or property values have to be written down to levels that translate into yields acceptable to investors.⁵⁵¹

*“To cut a long story short, the reasons why we won’t do Securitisations going forward is that we would get hurt with a huge haircut and we do not want that. Senior bondholders and junior bondholders would require a certain yield for this structure, but here in town the current yields range between 3-4%.”*⁵⁵²

What motives?

Motives change with the use of Real Estate Securitisation either as a divestment vehicle or as an innovative financing instrument. They also depend on the asset and the property type.

- If an originator uses Real Estate Securitisation as a **divestment vehicle**, then the creation of liquidity, the monetization of the property and balance sheet management are the primary motives. For some originators this way of divestment may be one of the few options to dispose of large investment property holdings.⁵⁵³
- However, if a property company uses the concept as an **innovative financing instrument**, then diversification of funding sources, cheaper and longer term financing at a fixed rate as well as the opportunity to bring forward cash flows from future receivables are the main motives.

Overall a higher Loan-to-Value ratio cannot be observed as a motive, but the diversification of funding sources is an effective motive in any case, especially in times of rising interest rates and a deteriorating bank lending market.⁵⁵⁴

⁵⁵¹ This is what happened before the launch of the first Singapore Office REIT CapitaCommercial – rent levels were raised and asset values were adjusted. It made the REIT issuance an oversubscribed success. Cf. Heng (2003), Interview 7, p. 554.

⁵⁵² Cf. Yeo (2003), Interview 2, p. 554.

⁵⁵³ The development in the physical real estate market made listed property companies realise that for their share prices to perform, they need to invest into landbanks and development projects and not into holding investment properties. Real Estate Securitisation is a useful way to divest of investment properties and invest into residential development sites.

⁵⁵⁴ Cf. Sing (2003), Interview 5, p. 554.

Transactions are not attractive to all property owners because the transactions do not necessarily lead to cheaper financing – Securitisation transactions are expensive and only make sense if the company overweighs motives other than cheap financing.

Generally, when using the structure for securitising physical assets, Real Estate Securitisation offers several advantages over traditional bank financing. So, the originator has the choice:

- If the company needs to lower the leverage ratio and wants to get the property off-balance sheet, then a Real Estate Securitisation might be the right way.⁵⁵⁵
- If the company does not care about keeping the property off- or on-balance sheet, then bank loans might be cheaper, faster and more convenient

But even if Real Estate Securitisation is chosen to divest the asset, then off-balance sheet treatment is not guaranteed. So, it comes down to two scenarios:

- If divesting the asset, but sharing the upside and being able to control the asset at a later stage are important to the originator, then the originator has to accept that the transaction will be on-balance sheet.⁵⁵⁶
- If the originator wants to divest the asset, without keeping any interest in the property, then the property will go off-balance sheet.

Hence, it is a conflict of objectives; everything at the same time is not achievable. All in all off-balance sheet treatment must not be the primary driver for choosing Real Estate Securitisation. The tougher the accounting rules are, the harder it will get to achieve off-balance sheet financing. But even if it might not be achievable anymore, there may be other motives that will none the less lead to Real Estate Securitisation transactions.⁵⁵⁷

⁵⁵⁵ Once the asset sale is considered as a 'true sale', the company can take it off its balance sheet and retire whatever debts are incurred for the property. As a result, the company's borrowings are reduced and, correspondingly, its gearing ratio goes down.

⁵⁵⁶ Control by the use of options and upside participation by investing into the junior tranche and the use of preference shares.

⁵⁵⁷ Cf. Sing (2003), Interview 5, p. 554.

Especially in Singapore, developers were and still are seeking to divest low yielding properties and to channel their capital into high yielding development projects – thereby boosting their return on capital. The motives for choosing Real Estate Securitisation to fund development projects are straightforward. Developers want to

- reduce their cost of construction funding,
- unlock the value tied up in development projects,
- use the proceeds to upgrade their landbank,
- and realize the money from one project and put it into the next one.⁵⁵⁸

“Securitisation enables the company to bring forward cash flows from the deferred payment scheme and is expected to reduce the financing costs for the project in view of lower interest rates... This is part of the company's ongoing financial management efforts to improve profitability.”⁵⁵⁹

What structures/schemes?

The unique structural features out of Singapore Real Estate Securitisation transactions (primarily out of the first half of the development) included:⁵⁶⁰

- **Sale-Leaseback agreements with Government-Linked Corporations** that implicitly guaranteed predictable cash flows to investors. So the first Real Estate Securitisation transactions can be viewed as sale-and-leaseback transactions with a Securitisation component.⁵⁶¹
- A **two-tranche structure**, featuring a 2/3 senior tranche and a 1/3 junior tranche.
- **Embedded options**⁵⁶²

⁵⁵⁸ Cf. Anonymous (2004i).

⁵⁵⁹ Rashiwala (2003c).

⁵⁶⁰ Cf. Heng (2003), Interview 7, p. 554.

⁵⁶¹ Cf. Seck (2003), Interview 3, p. 554.

⁵⁶² For further information on how options can create value, confer Hommel, *et al.* (2001).

- Call Options for originators/junior bondholders giving them the right to collapse the structure and call the deal.
- Put Options for senior bond investors, de facto guaranteeing their principal amount.
- **Preference Share** stapled to the bonds (primarily to junior bonds) that gave the bondholders the opportunity to benefit from surplus rental income and future property appreciation.
- **Originators' participation in junior bonds**, i.e. taking subordinate and first loss position. The junior bonds even sometimes had a lower interest than the senior bonds, due to low yields on the properties. This made the bonds – especially the junior bonds – behave like equity but be accounted for as debt.

Structures change in different stages of the development cycle. In the case of Singapore, the first stage was stamped by unique local structures (standardized DBS Bank structure), which were improved and amended in stage two. Also, in stage two new structures evolved that consolidated their position in the third stage (residential sales receivable transactions). The third stage was even characterized by new and internationally recognized structures (Single Borrower CMBS).

Which role played which environment?

All environments played an important role in the evolution of the market and the overall framework in Singapore was favourable. This fact is ultimately supported by Singapore's position in the Jones Lang LaSalle (JLL) Global Real Estate Market Transparency Index.⁵⁶³

- **Regulatory and legal environment** was most important:

⁵⁶³ The Jones Lang LaSalle index maps different countries and regions with respect to legal factors, tax and other regulatory burdens, governance and disclosure of listed investment vehicles, quality of market fundamental research, and availability of investment performance indices. It relates the resulting transparency scores to each country's per capita GDP. One rule that can be derived is that the more per capital GDP a country has, the better the transparency score. Singapore with a high per capita GDP has an enormous transparency and ranges among the US, Europe and Australia. Cf. Corcoran and Iwai (2004a), p. 2.

In 1998, the government broke a new path and formulated a strategy to turn Singapore into the leading debt securities market in Asia outside of Japan. For this the Monetary Authority of Singapore announced a shift in regulatory policy towards a 'lighter touch'. The overall goal of the government was to reform the fiscal and regulatory systems in order to give a freer rein to the market dynamics. Additionally the legal system in Singapore provided a sound platform for Real Estate Securitisation, allowing an easy transfer of assets, the incorporation of bankruptcy remote SPVs, and having a reliable bankruptcy code. This spurred capital markets activity in Singapore.

- **Tax environment** was important:

In addition to the new regulatory approach, the Inland Revenue Service (IRS) adopted favourable tax rules for bond investments, exempting foreign investors from paying tax on interest income and lowering the tax rate to 10% for local investors. This also was favourable for the development of the market and international interest in Singapore Real Estate Securitisation transactions.

- **Accounting environment** played a decisive role:

The accountants had an enormous influence on the evolution of the market. In the first stage – under Singapore GAAP – they attested Real Estate Securitisation transactions as 'true sale' divestments, and hence considered the structures as off-balance sheet. With an ongoing orientation towards international standards and the impact that the Enron scandal had on the accounting environment worldwide, the accountants approach to Real Estate Securitisation transactions changed one hundred-eighty degrees to being very conservative. This initiated a period of orientation (November 1999 – June 2001), in which only one transaction took place. This orientation phase – also influenced by final regulatory guidelines on Asset-Securitisation (September 2000) – spurred a structural evolution that culminated in new 'true' off-balance sheet structures and new securitised asset types.

- **Investor and rating environment** made the structures unique to Singapore. The deals were adapted to originators' needs and were tailored to fit local

investors' requirements. While the strong local investor base was important for the evolution of the Real Estate Securitisation market, the market was also important for domestic institutional investors as they were lacking investment alternatives in local bonds and real estate.

- The **Real Estate Environment** was the leading driver behind the inception of the securitised market. The **Cultural Environment** and the Local peculiarities influenced the spreading of the market as well as the structural setup.

*"I think the Singapore market developed totally different from how the US or Europe developed. It is a very localized development, mainly fuelled by the originators wanting to sell their properties, influenced by the bond incentives available with the transactions being entirely on-shore having no rating at all. I think the US is such a large market. It is an established market and it has a very established property market – that is a different environment."*⁵⁶⁴

What were the drivers?

Three main drivers for the evolution of the Real Estate Securitisation market in Singapore in 1999 can be identified:

- The **Asian Financial Crisis** – resulting in high interest rates, low loan commitments by banks (credit crunch), strong need to refinance loans that matured, high real estate asset values and no buyers that could afford to buy and finance large assets.
- The strong **involvement of the government** in the financial markets and its stringent objective to make Singapore Southeast Asia's leading centre of financial innovation and debt trading.
- A management **policy shift by local developers** away from the asset-rich and leading to an asset-light approach.

Subsequently to the Asian Financial Crisis the Singapore Government has started to implement a wide range of reforms and economic restructuring in the

⁵⁶⁴ Anonymous (2003), Interview 1, p. 554.

financial sector. The government decided to develop the bond market and make Singapore a leading 'financial supermarket' in Asia.

One driver that is still valid and will become even more important in the future is that the **Banking (Amendment) Act** requires local banks to divest their non-core assets – including by large properties – by July 2006. So, whereas the divestment of physical assets for corporates was a main driver in the beginning of the market, this change in laws might be driver for the future development of Real Estate Securitisation as a divestment vehicle for banks.

Drivers changing and fuelling the different environments throughout the development of the Real Estate Securitisation market:⁵⁶⁵

- *Regulatory Environment:* Government initiated 'lighter touch' approach with respect to regulating the financial markets.
- *Tax Environment:* Government decided to push the debt market by offering tax incentives to bond investors, arrangers and originators.
- *Accounting Environment:* The adoption of international accounting standards by Singapore accountants.
- *Investor Environment:* A strong appetite for local bonds, especially Real Estate Asset-Backed Securities and the acceptance of 'local flavoured' features to Real Estate Securitisation structures.
- *Rating Environment:* The ongoing internationalisation of issuances and structures in the second half of the development led to an increased involvement of rating agencies.
- *Real Estate/Local/Cultural:* The downturn of the real estate market in the physical cycle and the trough in the financial cycle. Additionally the local mindset and structures that were tailored at local originators' and investors' needs, including the acceptance of unrated issuances.

"Moreover, Singapore has many advantages, including location, availability of a skilled workforce, 'AAA' sovereign rating, and clear legal system. The marriage

⁵⁶⁵ Drivers change environments and environments in turn influence the core determinants (originators/borrowers, assets, motives), which then determine utilized structures.

*of these factors with relevant tax benefits is making Singapore the preferred location [for these kinds of transactions]...*⁵⁶⁶

What role plays the timing?

*"In good times property purchases did not need to be financed with bonds."*⁵⁶⁷

The evolution of the Real Estate Securitisation market is dependent on the real estate market cycle.⁵⁶⁸ A timeframe for the favourable initiation of such a market can be derived from the physical and the financial market:

When the physical real estate market is in a decline and capital flows into real estate are scarce, but real estate companies need to sell their assets, or refinance in a high interest rate environment, then this spurs the development of Real Estate Securitisation. So, in times where yields are low, asset values are high, banks do not want to commit financings (credit crunch), no investor can afford to buy and no asset holder wants to sell, then there is potential for new financing vehicles.⁵⁶⁹

It can be concluded that there is a favourable timing for all kinds of asset types within Real Estate Securitisation. In the earlier days with the physical real estate market being down and a credit crunch burdening real estate companies, the divestment of physical real estate assets by the way of Real Estate Securitisation was the only feasible way to get out of the credit crunch.

So, whereas in the beginning physical assets were securitised, in the second and third stage other non-physical assets (residential condominium sales receivables, leases and mortgage loans) took over. This was mainly spurred by timing and the state of the real estate market as yields were low and originators were not prepared to "take haircuts"⁵⁷⁰ on physical asset Real Estate Securitisation transactions. However, the structured interviews showed that this

⁵⁶⁶ Scott and Hunt (2004), p. 1.

⁵⁶⁷ Choong (1998).

⁵⁶⁸ Cf. Ho (2003), Interview 6, p. 554.

⁵⁶⁹ This statement is supported by the evolution of similar markets in the USA, Japan and Australia. Here deals started at or near cyclical property market "bottoms. Cf. Corcoran and Iwai (2004a), p. 1.

⁵⁷⁰ Yeo (2003), Interview 2, p. 554.

is only momentarily – physical asset Real Estate Securitisation will come back once the capital values have come down and the real estate market picks up. This shows that the evolution shown in Singapore is by far not over and that its structures are not primarily dependent on its balance sheet consideration but rather on the real estate market cycle.⁵⁷¹

“It [the occurrence of physical asset Real Estate Securitisation] is rather a cyclical thing than a question about off- vs. on-balance sheet financing.”⁵⁷²

What else played a role in making the market successful?

Already in 1986, the first Mortgage-Backed Bond transactions were initiated. In this period the government started to change laws and make those transactions possible. The ultimate decision to push the market and hence open up the bond market for local investors failed to appear. However, the institution of Mortgage-Backed Bonds, created a pre-phase market that helped the Asset-Securitisation market evolve in 1999.

Moreover, the Monetary Authority of Singapore’s openness to views from the market place played a huge role in fostering a vibrant but orderly Real Estate Securitisation market.⁵⁷³ In response to concerns raised by industry players, the dialogue between the central bank and the industry has emerged as a key feature in the liberalisation of the financial sector.⁵⁷⁴

Apart from that, Singapore’s standing among the Asian countries played an important role in developing a successful and internationally recognized debt market:

- The Singapore dollar is a relatively liquid instrument among Asian currencies in the world markets.
- Local banks are considered well managed.

⁵⁷¹ Cf. Yeo (2003), Interview 2, p. 554; Seck (2003), Interview 3, p. 554; Sing (2003), Interview 5, p. 554; Heng (2003), Interview 7, p. 554; Cf. Ho (2003), Interview 6, p. 554.

⁵⁷² Cf. Seck (2003), Interview 3, p. 554.

⁵⁷³ The Monetary Authority of Singapore is effectively the Singapore Central Bank.

⁵⁷⁴ Cf. Kong (1999a).

- The Monetary Authority of Singapore's (MAS) regulatory supervision is highly regarded.

4-Stage Model for Real Estate Securitisation

From the preceding breakdown of the Asset-Securitisation framework and the analysis of Real Estate Securitisation in Singapore, a 4-stage model for the evolution of Real Estate Securitisation in Singapore can be derived (Figure 17):

Stage 1 (1999/2000): Experimental Stage

- a. New structure development (unique, but poorly conceived)
 - b. Market opening: small market (more private than public transactions)
 - c. Small market volume (i.e. new issuance)
 - d. Local development
 - i. Local originators/borrowers (e.g. DBS Land)
 - ii. Local arrangers (e.g. DBS Bank)
 - iii. Local investors
 - e. High structural uniqueness – very strong innovative activity
 - f. High structural flexibility / unstandardised
 - g. High costs / expensive transactions (high interest expenses & very high structuring fees)
 - h. No transactions rated
- **Stage 2 (2001/2002): Ripening Stage**
 - a. Structure ripening/enhancement (still unique, but rethought and adapted)
 - b. Market broadening (increasing public transactions)
 - c. Growing market volume (i.e. new issuance)
 - d. Starting internationalisation
 - i. International arrangers (HypoVereinsbank)
 - ii. International investors
 - iii. Rating agency

- e. Still relatively high structural uniqueness, but decreasing – innovative activity still strong
- f. Relatively high structural flexibility / partly standardised
- g. Costs are less, but still higher compared to traditional bank financing
- h. Transactions partly rated

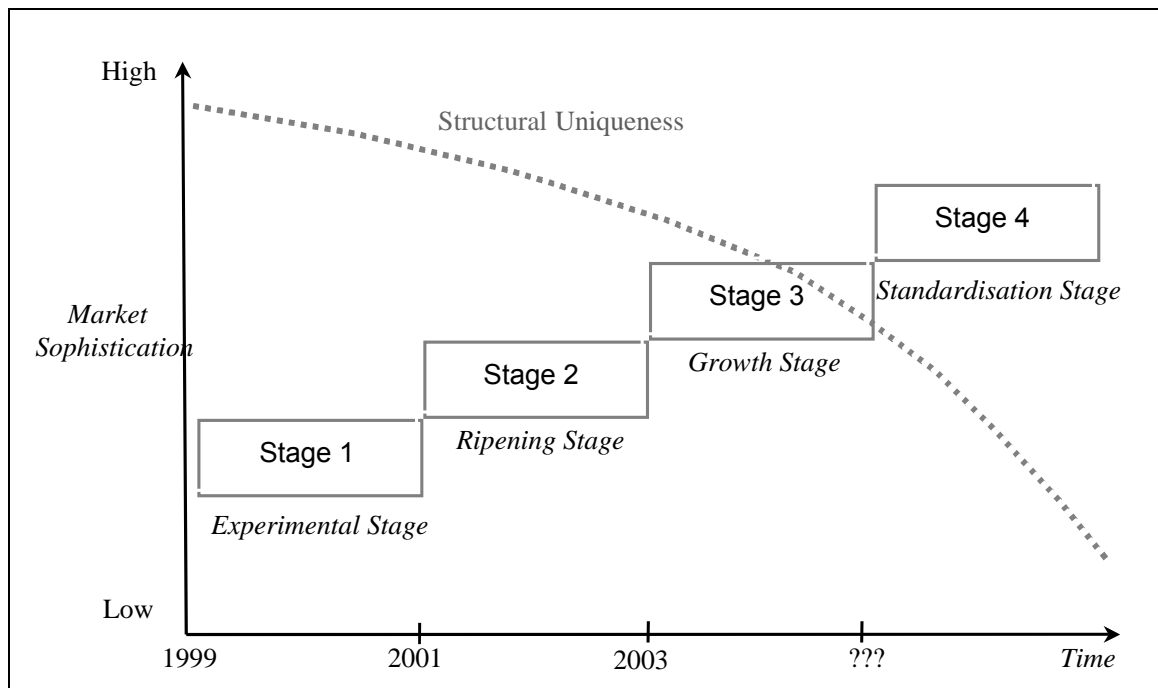


Figure 17: 4-Stage Evolution Model for Real Estate Securitisation Markets – applied to the case of Singapore

- Stage 3 (2003/2004): Growth Stage
 - a. Structure evolution/assimilation (international standards)
 - b. Strong market growth (more public than private transactions)
 - c. Relatively large market volume (i.e. new issuance)
 - d. International recognition
 - e. Strongly decreasing structural uniqueness – slow innovative activity, assimilation to internationally recognised structures
 - f. Structural flexibility is declining rapidly – increasing standardisation
 - g. Costs decrease and can compete with traditional bank financing
 - h. Transactions mostly rated

- Stage 4 (to come): Standardisation Stage
 - a. Structure standardisation (all transactions are the same)
 - b. Matured market (predominantly public transactions)
 - c. Large market volume (i.e. new issuance)
 - d. Global product
 - e. No innovative activity – bulk transactions
 - f. No structural flexibility – total standardisation / high covenants for borrowers/originators
 - g. Costs are lower than with traditional bank financing
 - h. All transactions are rated

All in all Singapore valued the development of its financial sector so highly that it was almost inevitable that Asset-Securitisation developed. However, the overall Singapore Asset-Securitisation market is not as mature as in Europe or the USA, yet. The market is still on the rise. Despite the success of Real Estate Securitisation in Singapore, neither RMBS nor bank originated Portfolio-CMBS have developed in Singapore, yet;⁵⁷⁵ both are major asset class in the other markets.⁵⁷⁶ When the first transactions finally emerge in Singapore, chances are that the structure employed will also have a uniquely local flavour. It will show that in the debt market as elsewhere, the ability and willingness to adapt is key.

⁵⁷⁵ Residential Mortgage-Backed Securities as well as bank originated Securitisations of commercial mortgage loan portfolios (Portfolio CMBS) do not belong into the asset class of Real Estate Securitisation transactions.

⁵⁷⁶ Cf. Sing and Ong (2004), p. 167; Sing, *et al.* (2004), p. 5.

4.3 USA

The Real Estate Securitisation market in the USA is de-facto represented by the Commercial Mortgage-Backed Securities (CMBS) market. There are certain parts of the market that overlap with the definition of Real Estate Securitisation delineated in chapter 3 of this thesis; however, there are also portfolio transactions incorporated in the US Commercial Mortgage-Backed Security market that do not fall into the boundaries of Real Estate Securitisation, such as Conduit-CMBS and Conduit-Fusion CMBS. Nevertheless, Real Estate Securitisation and Commercial Mortgage-Backed Securitisation will be used as exchangeable expressions in the following chapter.

Even though the Mortgage-Backed Securities market in the US is not 100% congruent with the definition of Real Estate Securitisation, the evolution of the (Residential) Mortgage-Backed Securities (RMBS) and the subsequent development of the Commercial Mortgage-Backed Securities market (incl. Single Property CMBS, Large Loan CMBS, Conduit-CMBS, Conduit-Fusion CMBS and Credit Tenant Lease Securitisation) can be taken as a proxy for the development of Real Estate Securitisation markets in general. Therefore, the analysis of the development of this big market reveals circumstances that favour the development of such markets. This in return has great implications for the development of a Real Estate Securitisation market in Germany as analysed in chapter 5.⁵⁷⁷

4.3.1 Literature Review

Commercial Mortgage-Backed Securities (CMBS) are a fairly young asset class within Asset-Securitisation. The market only really got off the ground during the late 1980's, fuelled by the tax reform act of 1986, the savings and loans crisis and the Resolution Trust Corporation (RTC). So, this was also the time when the first research was conducted on Real Estate Securitisation and Commercial Mortgage-Backed Securities.

⁵⁷⁷ Cf. Corcoran (2003), Interview 12, p. 554.

CMBS research really grew out of Mortgage-Backed Securities research,⁵⁷⁸ although both today are perceived as different asset classes. One main structural innovation in Mortgage-Backed Securities research fuelled the evolution of CMBS; this was the development of Collateralized Mortgage Obligations (CMO's) in the early 1980's.⁵⁷⁹

Most of the research at that stage was industry originated, the authors were practitioners (mostly investment bankers, rating agency analysts and lawyers) analyzing the market, but also trying to explain their ideas and putting their ideas to trial.⁵⁸⁰ The biggest innovation during that time was the rating model introduced by Standard & Poor's in 1985.⁵⁸¹ The rating of Securities backed by commercial property was also what the first studies were mainly concerned with.⁵⁸² Apart from that the phenomenon of financing real estate over the capital markets was in the centre of interest.⁵⁸³

The academic Asset-Securitisation world was literally non-existent. First academic publications on Commercial Mortgage-Backed Securities came out of fixed income handbooks.⁵⁸⁴ It took until 1996 for a first textbook in Asset-Backed Securities⁵⁸⁵ and until 1997 for a first textbook on Commercial Mortgage-Backed Securities⁵⁸⁶ to come out. Frank Fabozzi, an adjunct Professor of Finance at Yale University, was the innovator in that field. It was he, who edited those first two books that were basically practitioner's

⁵⁷⁸ The Handbook of Residential Mortgage-Backed Securities was the first book on Asset-Securitisation, as residential mortgages were the first asset class within the field of Securitisation. Cf. Fabozzi (2001), p. 1.

⁵⁷⁹ Cf. McConnell and Muller (1988), p. 92.

⁵⁸⁰ Cf. Adler (1987), p. 19; Chu (1985), p. 29; Franzetti (1991), p. 65; Healey and Walter (1988), p. 7; Hu (1987), p. 13; Kane (1991), p. 15; Kane (1992), p. 18; Levitin (1987), p. 26; Manolis and Meistrich (1986), p. 17; O'Connor Jr. (1986), p. 16; Ori (1991), p. 49; Pastore, *et al.* (1988), p. 52; Ross and Kane (1985), p. 7; Zacamy and Zwaryczuk (1987), p. 17.

⁵⁸¹ Cf. Ross and Kane (1985), p. 7.

⁵⁸² Cf. Kehr (1988), p. 21; Pastore, *et al.* (1988), p. 52.

⁵⁸³ Cf. Books (1988), p. 17; Chu (1985), p. 29; Healey and Walter (1988), p. 7.

⁵⁸⁴ Cf. Fabozzi (1997), p. 1.

⁵⁸⁵ Cf. Fabozzi and Bhattacharya (1996), p. 1.

⁵⁸⁶ Cf. Fabozzi and Jacob (1997), p. 1.

handbooks; the CMBS book was even co-sponsored by Nomura Securities. Most of the authors were practitioners.⁵⁸⁷

The evolution of the US CMBS market can be described by a life-cycle model. So can the evolution of literature covering and analyzing this market. Whereas in the beginning the general ideas of financing real estate over the capital markets were in the focus of researchers, the more mature and sophisticated the market got, the more sophisticated the research got. Once the structures were setup and the tax and accounting environments were fixed, the research was trying to describe and map into which direction the secondary market could develop.⁵⁸⁸ Eventually, the focus shifted towards investment analysis: prepayment,⁵⁸⁹ default⁵⁹⁰ and pricing studies.⁵⁹¹

As described above, Real Estate Securitisation in its pure form as described in Chapter 3, does not exist in the United States. However, there are two very innovative papers by Richard A. Graff that relate to the same underlying idea inherent in the concept of Real Estate Securitisation. The theoretical ideas brought forward in those papers is that the ownership of economic benefits from current leases of real estate can be separated from ownership of economic benefits from future leases; thereby splitting up the value of the real estate into a current lease value and a future lease value representing different risk/return characteristics for investors. Even though the concept of Credit Tenant Lease Securitisation has evolved in the US over the years, the Graff concept has not been accepted by the industry and has not yet come to any practical relevance.⁵⁹²

⁵⁸⁷ CMBS research is still a field that is very much dominated by industry researchers (investment banks and rating agencies) and industry participants.

⁵⁸⁸ Cf. Adams (1995), p. 63; Benjamin and Baker (1994), p. 67; Forsell (1994), p. 46; Forte (1996), p. 8; Gorlow, *et al.* (1993), p. 22; Kane and Alpart (1995), p. 35; Olasov (1995), p. 10; Rubin (1996), p. 61; Schneider (1996), p. 14; Wratten (1996), p. 1; Wright and Miller (1997), p. 26.

⁵⁸⁹ Cf. Schwartz and Torous (1993), p. 431.

⁵⁹⁰ Cf. Jacob, *et al.* (1996), p. 1; Shilton and Teall (1994), p. 219; Vandell (1992), p. 55.

⁵⁹¹ Cf. Archer and Ling (1993), p. 373; Saderion, *et al.* (1994), p. 151.

⁵⁹² Cf. Graff (1999), p. 183; Graff (2001), p. 213.

As with the Singapore market, there exists no adequate framework for analyzing the Real Estate Securitisation market and its evolution in the US.⁵⁹³ There is no comprehensive study putting together the development of the US market into a model that shows how the different environments (especially tax, accounting, investor and rating) have influenced the borrowers, assets and motives (i.e. the core determinants). Moreover, no complete study has been made identifying the drivers fuelling the evolution of the market and the development of the different environments – there have been articles on the different separate environments, but the research was missing a comprehensive study. Apart from a complete overview, there has been thorough research on the different transaction schemes that are part of the US CMBS universe.

It would go beyond the scope of this study to analyze all the literature written on Commercial Mortgage-Backed Securities in the United States. Therefore the following sub-chapters will only relate to literature that was written on the different aspects of the CMBS market, the environments, the core determinants, and the drivers influencing this development in America. Moreover, articles identifying landmark transactions as well as typical borrowers, assets and motives will be analysed.

4.3.2 Market Overview

4.3.2.1 Definitions and Terminology

One important task before starting to get into the market overview and the different transactions is to lay out the terminology and the definitions for the different transaction schemes and sub-asset classes in the USA. Above that there are terminology differences between the USA, and Europe and Asia. Those shall be delineated and explained in this part.

Securitisation definition in the US

Generally, in the US the term Securitisation stands for pooling of assets and selling an undivided interest or beneficial interest in the underlying asset pool. So, it is congruent with the definition of Asset-Securitisation. Therefore it is the

⁵⁹³ Cf. Chapter 4.2.1, p.90.

generic term for everything that industry participants summarize under Mortgage-Backed Securities, Commercial Mortgage Backed Securities and Asset-Backed Securities.⁵⁹⁴

However, industry people as well as academics often mean Real Estate Investment Trusts (REITS), when talking about Real Estate Securitisation. But, when investors buy a REIT, they are buying equity shares in a “kind of mutual fund”. It is not an Asset-Securitisation as defined above. The difference to CMBS or ABS is that investors are not buying an undivided interest in an underlying asset pool, which is a debt instrument. So, using the term Real Estate Securitisation without saying what the structure is (i.e. CMBS or REIT) creates confusion. In this thesis, the term Real Estate Securitisation relates to CMBS and not to REITs⁵⁹⁵

Real Estate Securitisation in the US

In the past it has typically been loans secured by real estate that have been securitized as opposed to real estate assets themselves. There have been a few cases where there was real estate securitised, but this was in non-performing loan transactions, where some of the assets were real estate owned (REO) assets. Real estate owned assets are properties that have been foreclosed upon but not yet disposed of. Non-performing CMBS deals typically have a mix of sub-performing, defaulted loans and REO assets.⁵⁹⁶

Even though there is a long list of securitisable real estate assets in the US and sponsors can securitise basically everything that has a stable cash flow, it is typically the interest and principal payments on commercial mortgage loans that get securitised.⁵⁹⁷ The mortgage loan related Securitisation market is dominant, lease cash flow and receivable Securitisation is very small.⁵⁹⁸

⁵⁹⁴ Cf. Boemio (2003), Interview 17, p. 554.

⁵⁹⁵ Cf. Boemio (2003), Interview 17, p. 554.

⁵⁹⁶ Cf. Choe (2003), Interview 13, p. 554.

⁵⁹⁷ In the US, a lot of people talk about the Securitisation of mortgages, when referring to Commercial Mortgage-Backed Securities. Semantically, this is not completely right since, it is not the mortgage that gets securitised, but the interest and principal payments from a loan that is backed by the mortgage as collateral. In some interviews the interviewees talk about mortgages, but what they really mean is mortgage loan. So for the text of this thesis the term

There have not been any future real estate cash flow Securitisations in the US. Typically, there is always a mortgage loan securing the real estate. Usually, companies want to retain their properties on their balance sheet and just use Securitisation (CMBS) as a method of financing during their holding period.⁵⁹⁹

“If we finance real estate through Securitisation in the US, there are really only two ways to do it: CMBS and CTL. Again, all we are doing is using debt to finance it. Now if you are using equity – people here haven’t really securitized pure equity, because there are all kinds of equity vehicles – big funds and REITs that are publicly traded, that we use to invest into real estate for equity purposes.”⁶⁰⁰

Mortgage-Backed Securities

In Europe and Asia the term Mortgage-Backed Securities is the generic term for all transactions securitising interest and principal payments from mortgage loans (residential and commercial).⁶⁰¹ Whereas semantically it is right to put up Mortgage-Backed Securities as the generic term that covers residential (RMBS) as well as commercial mortgage assets (CMBS), in the US the term Mortgage-Backed Security has become synonymous with residential mortgage assets (RMBS). If industry people talk about commercial mortgage assets, they will say Commercial Mortgage-Backed Securities (CMBS). The reason for Mortgage-Backed Securities standing for RMBS is obvious, because the first assets that were securitised in Mortgage-Backed Security transactions were residential mortgages.⁶⁰²

Asset vs. Collateral

It does not matter if the collateral in the SPV is a mortgage or the property itself; in both cases it is a Securitisation. Because if the borrower sold the property to

mortgage loan is used. Also confer Chapter 3.1.3 above, for the differentiation of asset and collateral.

⁵⁹⁸ Cf. Boemio (2003), Interview 17, p. 554.

⁵⁹⁹ Cf. Choe (2003), Interview 13, p. 554.

⁶⁰⁰ Cf. Ashenmil (2003), Interview 14, p. 554.

⁶⁰¹ Cf. Chapter 2, p. 28.

⁶⁰² Cf. Boemio (2003), Interview 17, p. 554.

the SPV then the property is in there and that is a secured collateral, i.e. the same as a physical mortgage. In both cases it is one property, a single building, that is placed into the trust and the cash flows are derived from its tenants. Those cash flows are utilized to pay the bonds that are out there.

*"It all falls under the category of CMBS."*⁶⁰³

So, the concept of Real Estate Securitisation compared to Commercial Mortgage-Backed Securities in that sense is not much different. It is a different definition, but the underlying cash flow is what matters, and that is a real estate cash flow. In essence, there is no difference if the property is owned outright by the SPV or if the SPV holds a physical mortgage over the same building. In both cases, it is just a Securitisation of the cash flow and in the US "People still call it CMBS"⁶⁰⁴

*"It is still a Commercial Mortgage-Backed Security, not because there is a mortgage per se, but because there is real estate behind it."*⁶⁰⁵

Since there is a hard asset underlying this security, it may also be called an Asset-Backed, a Collateral-Backed or a Real Estate-Backed deal.⁶⁰⁶

Different meanings of the term Conduit⁶⁰⁷

In US literature the term 'Conduit' is not clearly defined. There are two different meanings that can be derived:

1. Conduit is a generic term and stands for all transactions that securitise mortgage loans through a specific intermediary, a vehicle that is pooling securitisable mortgage loans. Those loans have specifically been originated for Securitisation purposes and are underwritten in a very standardised way. It does not matter what size the loans have. In this context, if the term Conduit is used, it basically characterises the vehicle

⁶⁰³ Wolberg (2003), Interview 8, p. 554.

⁶⁰⁴ Cf. Wolberg (2003), Interview 8, p. 554.

⁶⁰⁵ Wolberg (2003), Interview 8, p. 554.

⁶⁰⁶ Cf. Wolberg (2003), Interview 8, p. 554.

⁶⁰⁷ Cf. Wheeler (2001b), p. 407.

that is pooling the mortgage loans in order to securitise them at a later stage.⁶⁰⁸

2. If the term Conduit is used in combination with CMBS, i.e. as the term Conduit-CMBS, then this stands for a certain transaction scheme/type within the field of CMBS. In Conduit-CMBS deals mortgage loans of a certain size are securitised. Those loans are small mortgage loans on commercial properties and have an average size of \$6 million.⁶⁰⁹

Conduit Vehicle

Conduits are vehicles that are usually set up by Wall Street firms. The vehicles are set up specifically to originate loans that are going to be securitised in the capital markets. Conduits are departments within an investment bank – they are not separate entities. Conduits are usually run by the firms' CMBS groups – one of the things that CMBS groups do is that they have a real estate loan vehicle (Conduit).⁶¹⁰

“So it is a Conduit into the capital markets.”⁶¹¹

So, a conduit is a vehicle that bundles mortgages into securities and sells them on the capital market, usually to insurance companies, pension funds, and other large investors. As such, those vehicles provide banks that do not have capital market capabilities with access to the capital market. Fannie Mae and Freddie Mac were the first mortgage conduits.⁶¹²

Commercial conduit lenders fall into three categories:⁶¹³

1. Big commercial banks (Bank of America or First Union)
2. Major Wall Street investment banks (Merrill Lynch or Deutsche Bank)
3. Smaller, independent, off-Wall Street loan aggregation groups (Conduits)

⁶⁰⁸ Cf. Gichon (1999), p. 6.

⁶⁰⁹ Cf. Corcoran (2003), Interview 12, p. 554.

⁶¹⁰ Cf. Dunlevy (1999), p. 126.

⁶¹¹ Ashenmil (2003), Interview 14, p. 554.

⁶¹² Cf. Peterson (1999), p. 56.

⁶¹³ Cf. Appendix: Conduit Lenders in the US as of 1999, p. 551.

Conduits can warehouse small commercial mortgage loans that get securitised in Conduit-CMBS transactions, but also large commercial mortgage loans that get securitised in Large Loan CMBS transactions or in Conduit-Fusion transactions (Combination of Conduit-CMBS and Large Loan CMBS). Single Property Transactions do not need a Conduit.⁶¹⁴

Single Property / Single-Borrower Transactions

The equivalent to the Singapore structure, where office buildings and shopping malls are sold to an SPV that in return issues bonds in the market to finance that purchase, in the US is called a Single Property deal.⁶¹⁵

Multi-Property – Large Loan Transactions

Once it is more than one building and more than one borrower, but a small number (e.g. 5 to 10) of office buildings, then the transaction category becomes a large loan deal. But it still falls under the category of CMBS.⁶¹⁶ Large Loan transactions incorporate mortgage loans made to developers, commercial real estate operators and investors on institutional quality real estate. The minimum size of a loan in a Large Loan transaction is \$20 million, but the gross of the loans that are made is usually not below \$60 million.⁶¹⁷ Typically, what is not a Conduit-CMBS type loan is considered a large loan. They are too big for a typical Conduit execution.⁶¹⁸

Conduit-CMBS Transactions

The term Conduit-CMBS loans or Conduit loans stands for small commercial mortgage loans on income-producing property. Loans that get originated for Conduit-CMBS transactions can vary in loan size. However, on average the classical Conduit deal by US standards incorporates 100 loans at \$6 million a piece.⁶¹⁹ The commercial mortgage loan conduits represent a source of

⁶¹⁴ Cf. Fiedler and Devoe (1995), p. 12.

⁶¹⁵ Cf. Wolberg (2003), Interview 8, p. 554.

⁶¹⁶ Cf. Wolberg (2003), Interview 8, p. 554.

⁶¹⁷ Cf. Boeckmann (2003), Interview 15, p. 554.

⁶¹⁸ Cf. Ashenmil (2003), Interview 14, p. 554.

⁶¹⁹ Conduit-CMBS loans are not all exactly \$6 million – the size usually ranges from \$4 million to \$8 million. Cf. Corcoran (2003), Interview 12, p. 554.

financing that has replaced much of the thrift lending and small volume insurance loans.⁶²⁰

Conduit-Fusion CMBS transactions

Conduit-Fusion CMBS are “hybrid” or “fusion” Conduit-CMBS deals. The deals have differing underlying collateral, which includes larger loans (greater than \$50 million) combined with smaller loans (average loan size is approximately \$4-6 million). The higher loan concentration prompts investors to perform more due diligence than normally performed on a standard conduit deal.⁶²¹

Participants in the Conduit-CMBS process

The nomenclature in the US is different than in Europe or Asia. The term arranger that is very common in Europe and Asia is not used in the US. In US Conduit-CMBS transactions, the arranger most of the time would be characterised as the sponsor of the Conduit, which in return would be the issuer of the securities. The originator on the other hand can be the sponsor, i.e. the Conduit originates and underwrites the mortgage loans that it securitises, or it can be another commercial bank, insurance company, mortgage broker, thrift institution or pension fund.⁶²² The borrower of the transaction is a company that is seeking financing for its real estate. The borrower is the owner of the real estate asset and the originator is the firm (usually an investment bank) that makes the mortgage loan that gets securitised in a Conduit-CMBS transaction.⁶²³

Part of the reason why the nomenclature in the US is different from Europe and Asia is that the market is fundamentally different. Whereas in Europe (and especially continental Europe) and in Asia (except for Japan) the mortgage loan assets that are securitised result out of the balance sheet holdings of commercial banks, in the US the securitised mortgage loans are underwritten for the sole purpose of Securitisation. This is also the reason why still most

⁶²⁰ Cf. Fabozzi and Dunlevy (2001), p. 141; Gichon (1999), p. 7.

⁶²¹ Cf. Gichon (1999), p. 7.

⁶²² Cf. Fabozzi and Ramsey (2001), p. 550.

⁶²³ There are cases, where Conduits underwrite mortgage loans and there are cases where the Conduit only buys mortgage collateral. Cf. Choe (2003), Interview 13, p. 554.

European CMBS are Portfolio and Balance Sheet CMBS, whereas in the US nearly 80% of all CMBS transactions are Conduit-CMBS.⁶²⁴

Above that, once one starts to securitise cash flows, one gets into a different workflow and has to look at the terminology from a different angle. This angle will lead back to the terminology introduced in Chapter 2.2. So in the case of current or future lease receivables, there is no loan to be underwritten and securitised, but there is a current or future receivable that is originated by the borrower/Sponsor (i.e. the originator) and then sold to an SPV (i.e. the Issuer) that funds itself by issuing bonds. The transaction is arranged by the investment bank (the arranger) that also sets up the SPV.⁶²⁵

All in all, for a lot of the above-described cases it comes down to semantics. Practitioners do not see the need of clearing this up. The terms that are used are determined by the industry that creates, structures and sells the product. Once the industry uses it, it is the dominant terminology even if it is semantically wrong.

Credit Tenant Lease Securitisation

A Credit Tenant Lease Securitisation (CTL) securitises a credit tenant loan. A credit tenant loan is linked to a sale-and-leaseback agreement. A credit tenant lease backs a credit tenant loan and stands for a triple-net⁶²⁶ or bondable lease with an investment grade tenant. This is why this kind of financing sometimes is also called 'Net-Lease Financing'.⁶²⁷

Usually, the term Credit Tenant Lease Securitisation refers to a single tenant Securitisation. When talking about the Securitisation of credit tenant leases the following terms are used interchangeably: Credit Tenant Lease Securitisation, Credit Tenant Loan Securitisation and Sale-Leaseback Securitisation.⁶²⁸

⁶²⁴ Cf. Rivlin and Philips (2003), Interview 23, p. 565; Corcoran and Iwai (2004b), p. 6.

⁶²⁵ See Chapter 2.2 above.

⁶²⁶ The term "net-net-net lease" or "triple net lease" is used to refer to a lease that required the tenant to pay for property taxes, insurance, and maintenance in addition to rent. In this case, the tenant bears the entire risk of unexpected changes in operating expenses. Cf. Brueggeman and Fisher (2001), p. 259; Sirmans (1989), p. 402.

⁶²⁷ Cf. Jacobs (2003), Interview 19, p. 554.

⁶²⁸ Cf. Ashenmil (2003), Interview 14, p. 554.

The Credit-Tenant Lease Securitisation market is generally considered an outpost of the Commercial Mortgage-Backed Securitisation market. One reason for this is that, even though the lease cash flows are securitised, there is also a mortgage on the property underlying the CTL transaction.⁶²⁹ Therefore, Credit Tenant Lease Securitisation is a subset of the CMBS,⁶³⁰ even though most of the transactions do not show up in the CMBS statistics. This is because unless the transaction is either quoted on the exchange or has done a 144-A election, the industry standard does not call it CMBS. The business is still a very much dominated by local banks like William Blair or Legg Mason Wood Walker that have played a strong role in establishing this market.⁶³¹

From a cash flow perspective CTL would be closer to an Asset-Backed Security than to a Commercial Mortgage-Backed Security. The reason is that it is a lease that gets securitised, the transaction relies heavily on the credit of the Lessee/Tenant and the deal is not real estate driven. So, it could also be considered an ABS. However, the transaction structure (interest and principal in a mortgage loan) and the underlying mortgage makes it qualify as a CMBS.⁶³²

4.3.2.2 Evolution and State of the Market

In order to describe the development and inception of the Commercial Mortgage-Backed Securities market in the US, one has to look at the evolution of the secondary mortgage market in general and in that respect also at the coming about of the Residential Mortgage-Backed Security market. The evolution of the overall Asset-Securitisation market in the US is closely linked to the secondary mortgage market. Residential Mortgages were the first asset class within the universe of Asset-Securitisation.⁶³³

So, whereas in Singapore the Securitisation of commercial real estate got the Asset Securitisation market lifted off the ground, in the US the creation of a

⁶²⁹ Cf. Ashenmil (2003), Interview 14, p. 554.

⁶³⁰ Credit Tenant Lease Securitisation is usually also a part of the CMBS group. Cf. Ashenmil (2003), Interview 14, p. 554.

⁶³¹ Cf. Jacobs (2003), Interview 19, p. 554.

⁶³² Cf. Boeckmann (2003), Interview 15, p. 554.

⁶³³ Cf. Melicher and Unger (1989), p. 99.

secondary market for residential mortgages and the issuance of securities backed by residential mortgages was the spark for the inception of the Asset-Securitisation market. Asset-Backed Securities and Receivable Securitisation only came about in 1984.⁶³⁴

As in Singapore, government agencies have played a crucial role in getting the market off the ground in the USA. They supplied affordable financing for house owners and thereby the government influenced and supported the development of Mortgage-Backed Securities as an innovative financing and funding tool.⁶³⁵

In an effort to reduce the credit risk to home mortgage investors (loan originators), the National Housing Act of 1934 created the Federal Housing Administration (FHA).⁶³⁶ This agency was authorized to insure lenders against loan defaults. Additionally, the FHA promoted long-term (30-40 years), self-amortizing mortgage loans as an alternative to the standard 5-10 year balloon home mortgage of the time. Also, the FHA established a set of rigid underwriting criteria for loans that qualified for FHA insurance, so that they could gather all the important information and limit their credit risk exposure. With that the agency created a national mortgage-lending standard. Then in 1938, the Federal National Mortgage Association (FNMA or Fannie Mae) was chartered to purchase and resell FHA loans. Essentially this was the start of the secondary mortgage market. It was the first time that liquidity was introduced into the home loan market.⁶³⁷

Ginnie Mae, Fannie Mae, and Freddie Mac

Thirty years after the creation of Fannie Mae, the Housing and Urban Development Act of 1968 strengthened the secondary market by splitting Fannie Mae into two entities: the new Fannie Mae and the Government National Mortgage Association (GNMA or Ginnie Mae). Under the new law, Fannie Mae was to act as a quasi-private corporation of the US government

⁶³⁴ Cf. Brueggeman and Fisher (2001), p. 495.

⁶³⁵ Cf. Ooi, *et al.* (2002), p. 58.

⁶³⁶ For a timeline on the evolution of the secondary mortgage market and the institution of the Mortgage-Backed Securities market, confer Appendix: Milestones the US Secondary Mortgage Market, p. 552.

⁶³⁷ Cf. Fiedler and Devoe (1995), p. 9.

with the charge of purchasing conventional home loan mortgages (loans not insured by the FHA). The second entity Ginnie Mae was to guarantee securities issued by private entities that were backed by pools of FHA, Veterans Administration (VA), and Farmers Home Administration (FmHA) home mortgage loans. Hence, Ginnie Mae enabled loan originators to package their mortgages together and issue securities against them. The public secondary mortgage market was born.⁶³⁸

The first Securitisation transactions of that sort allowed investors to purchase undivided interests in loan pools called "pass-through securities".⁶³⁹ The transactions were underwritten by investment banks. Because each mortgage in those transactions implicitly was backed by the Federal Government, these securities were perceived as (credit) risk free, much like government securities. Lenders used this new funding instrument in order to recycle their funds and use them to make new loans.

In those transactions, Ginnie Mae guaranteed the loans against default, thereby eliminating a major cause of unpredictable cash flows from mortgages. Also, they insured timely principal and interest payments to holders of all securities backed by FHA, VA, and FMHA mortgages. So, the entity absorbed the impact of mortgage prepayments (caused by home refinancing, natural disaster, or bank foreclosure) on the predictability of mortgage-backed security cash flows. This largely eliminated a traditional stumbling block for the growth of the public secondary mortgage market.⁶⁴⁰

The third government agency that totally lifted the public market off the ground was founded in 1970 by the Emergency Home Financing Act. The creation of the Federal Home Loan Mortgage Corporation (FHLMC or Freddie Mac) enlarged the secondary market for conventional mortgages. Along with Fannie Mae, Freddie Mac purchased conventional loans directly from loan originators, pooled them together and issued a new version of pass-through securities

⁶³⁸ Cf. Fiedler and Devoe (1995), p. 10.

⁶³⁹ The name of the security resulted out of the structure because payments of both mortgage principal and interest were passed through the vehicle directly to the investors. Cf. Hu (2001), p. 21.

⁶⁴⁰ Cf. Boemio (2003), Interview 17, p. 554.

called Participation Certificates (PC). The two quasi-private corporations, used their own mortgage pools as collateral, issued securities directly without going through an investment bank and offered a corporate guarantee of timely principal and interest payments, which was really a government guarantee. The Wall Street firms provided the demand, by facilitating the purchase of the residential mortgage-backed securities. So this structure basically solved the homeowners' problem of capital availability.⁶⁴¹

The market went into the next stage as Freddy Mac, in June 1983, introduced a new Mortgage-Backed Security called the Collateralized Mortgage Obligation (CMO). The CMO was designed to better suit the different investors' needs and thereby further increase home mortgage liquidity. This was mainly done by mitigating the prepayment risk of conventional mortgages. CMOs allowed distribution of cash flow to be prioritized among various bond classes, instead of distributing the cash flow of the underlying mortgage pools equally among investors (as pass-through securities did). By creating distinct classes of bond holders ('tranching'), mortgage pools were 'engineered' to distribute prepayment risk differently to investors with different attitudes toward risk and different needs of returns. Additionally, the tranching offered a range of terms-to-maturity.⁶⁴² The introduction of CMOs with different bond classes and tranching increased investor demand.⁶⁴³

The Securitisation market started with residential mortgages, because those assets were very homogenous, they were underwritten in a standard manner and the cash flows as well as the defaults were very predictable. The key concept always stayed the bankruptcy remoteness of the assets in the SPV and the effective security interest. So that, if there were problems with the issuing/originating bank, the investors only had to look at the assets and the performance of the assets and not at the originator. They could always get to the assets and sell them. It was a very safe asset for investors to invest in. So,

⁶⁴¹ Cf. Lowell (2001), p. 30.

⁶⁴² For more information on CMO structures, pricing, valuation, regulatory and risk assessment issues confer Fernald, *et al.* (1994), p. 88.

⁶⁴³ Cf. Fiedler and Devoe (1995), p. 10.

all that spurred Securitisation and made the capital market investors comfortable with the concept of Securitisation.⁶⁴⁴

The Commercial Mortgage-Backed Security Market – First Transactions

In the early 1980's the market started to develop into the direction of commercial property. At the time, there were still mainly bank-originated Residential Mortgage-Backed Securities as an asset class on the Securitisation market, but commercial mortgage loans as another asset type started to develop in 1984.⁶⁴⁵

Salomon Brothers, a Wall Street Investment Bank, became the innovator in the first Commercial Mortgage-Backed Security deals. The transaction that is widely considered the beginning of Commercial Mortgage-Backed Securities market occurred in early 1984. It was a Single Borrower transaction that developed when Olympia & York (O&Y), a Canadian developer that was the biggest real estate developer in New York City at the time, approached Salomon Brothers seeking to raise nearly \$1 billion. Salomon structured and privately placed \$970 million worth of unrated 15-year floating rate bonds with 40 institutional investors, which was about four times more than had been raised in any previous real estate financing. The offering priced initially at 175 basis points over the 91-day Treasury bill rate. The collateral for this transaction was three prime Manhattan office buildings – 237 Park Avenue, 1290 Avenue of the Americas and 2 Broadway. The notes were supported solely by the intrinsic real estate values of the properties (secured by a one blanket first mortgage on all three buildings) and were without any recourse to O&Y.⁶⁴⁶

Because the deal was custom-made to meet O&Y's needs and specifications, there was no market immediately in place. The market had to be developed around this new product and, for a while, Salomon Brothers accepted a principal risk until the market was found and established. Investors in this first transaction included savings and loan associations, commercial banks,

⁶⁴⁴ Cf. Boemio (2003), Interview 17, p. 554.

⁶⁴⁵ Cf. Wolberg (2003), Interview 8, p. 554.

⁶⁴⁶ Cf. Manolis and Meistrich (1986), p. 18.

insurance companies and pension funds⁶⁴⁷, i.e. the whole universe of institutional investors in US real estate. They were attracted to the O&Y offering by the following factors that, from then on, became the key propositions for investing into CMBS:⁶⁴⁸

- Liquidity – even though there was no active trading in the securities the investors had the opportunity to sell their participations if they needed to.
- Strong yields – compared to corporate bonds of the same credit quality the yields on these instruments were higher.
- Credit quality – the opportunity to finance some of the world's best highest quality real estate (in New York City). Something that had been unattainable for some investors.
- Diversification – a chance for institutional investors to diversify their investment portfolio.
- Asset-Liability Matching – for many insurance investors this new investment vehicle presented a chance to obtain long-term asset match for their long-term liabilities.

Following this issuance, in December 1984 Salomon Brothers arranged another first time deal. It was a Collateralized Mortgage Obligation (CMO) for Penn Mutual Life Insurance Co. It was the first CMO that was secured by commercial (income producing properties) as opposed to the traditional CMOs that were collateralized by single-family mortgage loans.⁶⁴⁹

As these offerings, were not rated, privately placed and were partly based on guarantees of the issuer (i.e. not on a stand-alone basis), there was a need for universal standards. As a consequence, Standard & Poor's – accepting the peculiarities and complexities of CMBS – developed a credit-rating system for the evaluation of Commercial Mortgage-Backed Securities that the agency introduced in late 1984. This made guarantees void, as the issued securities

⁶⁴⁷ At the time Pension Funds were the largest source of new long-term debt in the United States. Cf. Christiansen and Elebash (1987), p. 83.

⁶⁴⁸ Cf. Manolis and Meistrich (1986), p. 18.

⁶⁴⁹ Cf. Ross and Kane (1985), p. 8.

were credit rated by Standard & Poor's and were backed by and purely dependent on the pool of underlying mortgage loans. This in turn led to investor confidence in the issuances and made a broad spectrum of rated and publicly placed offerings possible (from secured mortgage loans on New York City skyscrapers to small town office buildings).⁶⁵⁰

These first Single Property/Single Borrower Real Estate Securitisation became a spur for the market. Together with the institution of Standard & Poor's rating criteria, major property owners gained access to traditional capital markets as a source of financing for investment-grade real estate. Before that real estate finance for multi-tenanted office buildings had been a "one-on-one" deal business with a single lender and a highly structured and heavily negotiated process the size of the financings were limited and the funding costs were high, reflecting the concentration on one borrower and one asset. The availability of long-term debt financing had been restricted to banks and insurance companies and the total financing amount were low. With the introduction of CMBS, this environment changed and another financing source was added by the capital markets. As a consequence, the total financing amount attainable on a single mortgage loan rose.⁶⁵¹

"Five years ago, a \$100 million mortgage would have been considered large.

*Today, mortgages of \$200 million are routine and even \$500 million is not uncommon."*⁶⁵²

One macro-economic reason, which led to the first transactions and the evolution of CMBS in 1984, was that the real estate industry was also going through a credit crunch fuelled by the Savings & Loans' crisis. As the number of lenders for large projects was limited and the general financing environment (with fewer lenders) had a negative impact on financing costs, the ability to negotiate favourable terms declined. As real estate developers recognized that real estate lending rates were far higher than risk-adjusted rates available for corporations in the capital markets, they put pressure on traditional lenders by

⁶⁵⁰ Cf. Ross and Kane (1985), p. 7.

⁶⁵¹ Cf. Manolis and Meistrich (1986), p. 17.

⁶⁵² Cf. Manolis and Meistrich (1986), p. 17.

trying to disintermediate them through direct real estate debt issuances in the capital markets. This was the start of the development of a public real estate debt market (i.e. CMBS market) in the US.⁶⁵³

In May 1985, another landmark transaction was structured, when American Express Company approached Salomon Brothers with the request to finance the purchase of American Express's new world headquarters, a 2.3 million square-foot office tower that was part of Olympia & York's downtown New York City development known as the World Financial Center. American Express was seeking \$500 million to finance this single property (appraised at \$700 million) over the capital markets. It became the largest single property financing at the time. The company wanted debt that was non-recourse to the greatest possible extent, as well as the lowest cost of funds. Even though American Express had a great corporate credit that they could have used to finance the building over a corporate bond issue in the capital markets, Salomon Brothers suggested that a competitive cost of funds could be obtained on a partially non-recourse basis by using CMBS, rated under the newly developed rating technology. The proposed transaction posed serious problems, as the building was unfinished and still under construction, and it was to be owner-occupied. To overcome these problems, Salomon Brothers came up with a new structure that was similar to CMOs. They employed a five note, segmented debt structure: four of the fully-amortizing notes were guaranteed by the corporate credit of American Express to compensate for the lack of leases in the building; the fifth note, an \$85 million (proceeds) zero coupon offering, was secured only by a first mortgage on the building. The entire financing got rated 'AA' rating by Standard & Poor's. The savings to American Express added up to about 50 basis points on the issue, while raising \$9 million more than the \$500 million it was seeking.⁶⁵⁴

Segmenting the debt on large financings over the capital markets introduced a new technology crucial to the development of the modern CMBS market. It improved rate savings and increased flexibility. The cash flows available from a

⁶⁵³ Cf. Manolis and Meistrich (1986), p. 17.

⁶⁵⁴ Cf. Manolis and Meistrich (1986), p. 20.

property could now be used to make payments on a series of notes which, in aggregate, had the same amortization and debt service as a single whole loan. The bonds were designed with short, medium and long maturities that were fully amortized from available cash flows. The amortizing notes were matched by a zero coupon to simulate the desired loan.

Finally, in late 1985 the next logical step was taken towards a new structure and the kick-off for the broad CMBS market: the Securitisation of seasoned, multi-tenanted office buildings. Salomon Brothers structured and closed the first two transactions in that segment within one week of each other:

1. Olympia & York Maiden Lane Finance Corp. (a subsidiary of O&Y)⁶⁵⁵

The first multi-tenant stand-alone real Securitisation was a \$200 million CMBS issuance 10-year bonds, rated 'AA' by Standard & Poor's. The deal was collateralized by the 59 Maiden Lane complex in the lower Manhattan financial district; an office building consisting of a combination of three structures, including a 44 story office tower and two 18-story buildings. It had about one million rentable square feet of space. The building was 99% occupied, with three tenants leasing about 95 % of the rentable square footage. These tenants were the Home Insurance Company, the Federal Reserve Bank of New York and The Chase Manhattan Bank. The two largest tenants, had leases that expired well after 1995 – the maturity of the proposed ten-year notes. This assured investors a very stable income stream with limited market risk for the property. When the transaction closed in the Euromarkets, it was priced at 80 basis points over ten-year Treasury bonds, which was about 60 basis points cheaper than traditional real estate financings at the time. The notes were listed on the Luxembourg Exchange, and Salomon Brothers became an active market maker in the securities.

2. Fisher Brothers Financial Realty Company⁶⁵⁶

⁶⁵⁵ Cf. Manolis and Meistrich (1986); Quek (1996), p. 23.

⁶⁵⁶ Cf. Manolis and Meistrich (1986), p. 23.

The second rated Securitisation of a loan on a multi-tenanted building was the Fisher Brothers transaction. It was a \$160 million bond that was secured by a mortgage over a 43-story, multi-tenanted office building in Midtown Manhattan. The building had more than 900,000 square feet of rentable space and was more than 99% occupied. Unlike the O&Y property, there were 25 tenants in the building – all with different credit ratings and holding leases of varying maturities. Some of the largest tenants had long-term leases that expired during the term of the financing, so that posed a problem, but got solved by credit enhancement. The financing was a fifteen-year bullet loan and came at a time when conventional lenders would have demanded a participation in the property or a convertible loan for maturities longer than ten or twelve years. The fixed-rate financing got a rate of 10.75%. Fisher Brothers realized a 50 to 60 basis point savings over the traditional financing route. Banking on the two previous rated transactions, the deal was closed in two months, which was the time required for a conventional financing. As investors in the US were not comfortable with the product, it was, to a great extent, placed off-shore in a public issuance that was listed on the Luxembourg stock exchange. Investors included foreign institutional investors like banks and bank trusts. Some bonds came back to the US in private placements.

The O&Y transaction was really a transitional development between the Single Tenant owner-occupied American Express transaction and large multi-tenanted transactions that followed. Even though all those transactions were Single-Borrower transactions, they set the standards for future multi-borrower transactions (Large Loan, Conduit-CMBS, Conduit-Fusion). Looking at it from the CTL perspective, the American Express deal was probably the first Credit Tenant Lease Securitisation.

As of the mid- to late-1980s, Wall Street Investment Banks played a much more important role in the intermediation of real estate credit than they did ever before. First came better packaging of increasingly larger transactions and then the more important integration of the corporate and real estate capital markets and the rapid proliferation of new products and structures (including multi-

borrower structures). By adding new alternative ways of financing, the opening of the public markets via Securitisation profoundly affected individual real estate businesses.⁶⁵⁷

The Tax Reform Act of 1986⁶⁵⁸

Another innovation in the Mortgage-Backed Securities market (RMBS and CMBS) was introduced with the Tax Reform Act in 1986. One of the most important aspects among the many profound changes that were instituted in the Tax Reform Act was the creation of the Real Estate Mortgage Investment Conduit (REMIC) for issuing multiple-class Mortgage-Backed Securities. The REMIC was a tax-neutral vehicle that created structuring flexibility.⁶⁵⁹ This new issuing entity proved to be the dominating factor for the new issuance market in the Mortgage-Backed Securities markets (RMBS and CMBS). The reason for this was simple:

- The new law clearly specified that REMICs are non-taxable entities for federal income taxes.
- The law allowed for the more efficient issuance of Mortgage Backed Securities.⁶⁶⁰
- The REMIC legislation by allowing multiple-class MBS broadened the investor base for these securities.⁶⁶¹

“The flexibility in structuring REMICs has made it possible to attract a variety of investors. A typical REMIC today contains ten to twenty different classes tailored to meet investors’ portfolio needs, and past REMICs have had fifty or more classes.”⁶⁶²

Whereas the REMIC structure was a strong boost for the Residential Mortgage-Backed Securities market right from the start, it only proved to be a small help

⁶⁵⁷ Cf. O'Connor Jr. (1986), p. 18.

⁶⁵⁸ For a more precise and more in-depth analysis on the REMIC structure confer chapter 4.3.3.2 – Tax Environment.

⁶⁵⁹ Cf. Ranieri (2000), p. 38.

⁶⁶⁰ Cf. Levitin (1987), p. 27.

⁶⁶¹ Cf. Hu (1987), p. 13.

for raising the issuance volume of Commercial Mortgage-Backed Securities. In the mid-1980's the CMBS market was still in its infancy and investor acceptance problems were more of a concern than tax problems. However, as the CMBS market started to take off in the early 1990's the efficient tax structure that was in place became a crucial factor for the exponential evolution of CMBS. Today, most CMBS vehicles are set up as a REMIC structure.⁶⁶³

The Savings & Loans' Crisis

The Savings & Loans crisis came about in the early 1980's, as the removal of the Regulation Q (1980) de-regulated the Savings & Loan's (Thrift) industry.⁶⁶⁴ The removal of Regulation Q gave savers the opportunity to place their funds outside the Thrift industry. This was the reason why Thrifts were watching their net worth disappear, some by as much as 10% per month, and it created pressure for them to develop capital quickly. So, under the deregulation the Thrifts were also granted commercial real estate lending authority, although they had no prior experience in the field. This was even expanded by the Garn-St. Germain Act of 1982. As a consequence Thrifts engaged heavily in commercial real estate lending because the rates were high. To engage in speculative loans in the new open markets was the fastest way for Thrifts to convert depositor funds into increased net worth. It was primarily loans that generated large fees, but that incorporated a lot of risk. The race for fees overcame all financial institutions. Competing commercial banks with similar declining capital reserves and the same need to generate fees participated in the competition for the same funds to be used in speculative lending. The checks and balances system of commercial real estate lending crumbled. Driven by overbuilding and a strong economic recession, the market went into a physical cycle downturn.⁶⁶⁵

⁶⁶³ Cf. Choe (2003), Interview 13, p. 554.

⁶⁶⁴ Savings & Loans and Thrifts are exchangeable terms. They are comparable institutions to German Sparkassen.

⁶⁶⁵ Cf. O'Connor Jr. (1986), p. 17.

Many of the speculative loans made by the Thrift institutions turned out badly. By the end of 1984, over 40% of the nation's thrift institutions were either insolvent or dangerously close to insolvency.

*"In the 1980's there was excessive competition in the lending market for real estate loans. This led to imprudence in assessing risk and the overall real estate environment. In return this fuelled an asset bubble in property prices. Through their imprudent loan origination in the 1980's the Savings & Loans (S&L) industry almost went out of business."*⁶⁶⁶

A lot of banks failed due to commercial real estate lending. The reason besides the aggressive behaviour of the Thrift Institutions was bad underwriting.

*"First of all, it happened because of poor underwriting and you cannot do a lot about that. People do not want to take their time and they lose their discipline. Poor underwriting is poor underwriting."*⁶⁶⁷

So, this crisis could have been fixed, if the underwriting standards had been more rigorous and if the Savings & Loans industry had been more disciplined and if the government had jumped in earlier. As a result of the crisis in the Thrift industry, the Federal Deposit Insurance Corporation (FDIC) and the Federal Savings and Loan Insurance Corporation (FSLIC), which had insured the deposits in these institutions through, had to take action.⁶⁶⁸

Finally, in 1989, Congress passed the Financial Institutions Reform, Recovery and Enforcement Act (FIRREA),⁶⁶⁹ which, among other things, created the Resolution Trust Corporation (RTC).⁶⁷⁰ The RTC's sole purpose was to liquidate the assets of failed Savings & Loans. In an effort to keep taxpayer exposure to a minimum, the RTC immediately began liquidating non-performing commercial real estate mortgage loan assets at greatly reduced prices through

⁶⁶⁶ Corcoran (2003), Interview 12, p. 554.

⁶⁶⁷ Stark (2003), Interview 10, p. 554.

⁶⁶⁸ Cf. Fiedler and Devoe (1995), p. 11.

⁶⁶⁹ Cf. Brueggeman (1995), p. 12.

⁶⁷⁰ In that time there were few vehicles for Asset-Securitisation. All the non-performing assets went into the Resolution Trust. Cf. Stark (2003), Interview 10, p. 554.

Securitisation issues. The institution used the proceeds to fund the deposit insurance claims.⁶⁷¹

The evolution of the Commercial Mortgage Backed-Security market in the US was really spurred by the Savings & Loans Crisis and the institution of the Resolution Trust Corporation (RTC). The RTC showed that it was even possible to pool bad and non-performing commercial mortgage loans and sell them into the market.⁶⁷² The logical consequence for investment banks was to originate performing loans and sell them into the market:

“So, then people began to say: ‘Well, if you can sell bad loans, why could not you underwrite new (good) loans and sell the new loans?’ ”⁶⁷³

The insurance industry was a major player in real estate financing in the 1980's. They had been making a lot of the loans for the commercial real estate industry. However, they “turned the spigot off” in the early 1990's, as a result to the bubble on the property market. The pressure on the insurance side mainly came from regulators and rating agencies urging the large insurance company real estate lenders to reduce their real estate exposures. Nearly simultaneously, also the bank industry stopped committing funds to commercial real estate, and hence, the industry slid into a credit crunch.⁶⁷⁴

As a result investment banks started to exploit the market that was opened by the RTC. They originated new loans and securitised them in the capital markets. Nomura became the early market leader in that field. As in every new and inefficient market, in the beginning there was a very large arbitrage in those new CMBS deals.⁶⁷⁵ The arbitrage resulted out of the willingness of the public market to pay significantly more for the bond cash flows than for the “crunch-afflicted private lending market.”⁶⁷⁶ There was almost a cessation of private market lending. The resulting problem for the borrowers was that their

⁶⁷¹ Cf. Pacelle (1994), p. B1.

⁶⁷² Cf. Lancaster (2001), p. 1.

⁶⁷³ Corcoran (2003), Interview 12, p. 554.

⁶⁷⁴ Cf. Corcoran (2003), Interview 12, p. 554.

⁶⁷⁵ It was new because those were large deals with multiple loans that were not non-performing as opposed to the non-performing loan transactions issued by the RTC in the early 1990's.

traditional 10-year balloon loans⁶⁷⁷ were coming to the balloon maturity dates and that those loans needed to be refinanced. However, there was no refinancing available in the private market. The large life insurance companies as well as the bank lenders all had the same policy:

“Borrowers came to their traditional insurance lender and the lender said:

‘Sorry, we are not doing those loans this year.’”⁶⁷⁸

So, the investment banks jumped in, underwrote and warehoused new loans and then securitised those portfolios in the capital markets. This was the inception of a new market segment and really the start of the modern CMBS market.

The Evolution of Commercial Mortgage-Backed Securitisation

For a CMBS market to be successful it has to sustain liquidity, and it must attract a big amount of active buyers and sellers. The success of the Commercial Mortgage-Backed Securities (CMBS) market depended on the tax structure (REMIC) and the confidence of investment banking firms in the size and depth of the demand for securities. As the RTC liquidated \$14.4 billion of assets between 1991 and 1993 through securitized REMIC low-price offerings, it created a large market and high volume of bargain hunting buyers. Comparing the development to the evolution in the Residential Mortgage-Backed Security market, the actions of the RTC paved the way for the issuance of securities backed solely by commercial mortgages, just as Ginnie Mae introduced residential mortgage securities to Wall Street.⁶⁷⁹

As opposed to the pre-RTC era, where most of the CMBS deals were Single Property/Single Borrower transactions, the first deals that were done in the post-RTC era were Large Loan CMBS transactions. The dominant player during

⁶⁷⁶ Cf. Corcoran (2003), Interview 12, p. 554.

⁶⁷⁷ The 10-year balloon fixed rate mortgage loan has been the traditional real estate loan in the US. However, with financial engineering and Securitisation becoming more predominant, this is also changing. Shorter maturity floating-rate financings are starting to become more popular, especially with short-term investors, like Opportunity funds. Cf. Choe (2003), Interview 13, p. 554.

⁶⁷⁸ Corcoran (2003), Interview 12, p. 554.

⁶⁷⁹ Cf. Fiedler and Devoe (1995), p. 12.

that time was Nomura. Large loans were first, because it was easier. The rationale for the bankers was the same as in the evolution of other Securitisation markets around the world:

“If you are going to do all the transaction work for a deal, you might as well work with a large transaction than a small one – as the fees are larger.”⁶⁸⁰

The next step was balance sheet and portfolio Securitisation. Banks and Insurance companies started to securitise commercial mortgage loans from their balance sheets. The origination of commercial mortgage loans was a long time bank and insurance company dominated. The strong involvement of insurance companies made sense for two reasons:

1. Their portfolios needed higher yielding assets.
2. They best knew the value of the real estate because they were insured it.

Prior to the Securitisation programs that came on line, those assets typically had to be held in the insurance company's portfolio as pure assets. So, it was looked upon as a 100% risk base by the regulators.⁶⁸¹ The same counted for banks. With Securitisation, however, this all changed. Securitisation was a great instrument for insurance companies to get around this constraint. So, those companies engaged into the first balance sheet trades to make Securitisation take off at the earlier days of the market place. They took the property assets (mostly mortgage loans) out of their portfolio and sold them to a securitising bank, a mortgage bank or an investment bank. The banks in return packaged them up and sold the lower rated tranches – the equity piece – back to the insurance company as bonds. Hence, those assets went from being on-balance sheet to off-balance sheet, freed up capital and gave them the ability to leverage. This was the start of balance-sheet and portfolio Securitisation.⁶⁸²

The Conduit-CMBS Market

⁶⁸⁰ Corcoran (2003), Interview 12, p. 554.

⁶⁸¹ 100% risk base means that whatever asset the insurance company held, they had to set aside equity equal the value of those assets.

⁶⁸² Cf. Wolberg (2003), Interview 8, p. 554.

As the CMBS market developed in the 1990's following the wrap up of the Resolution Trust Corporation, new issuance volume set one record after another, year by year. The annual US CMBS volume rose from mere \$4.6 billion in 1991⁶⁸³ to \$77.8 billion at year-end 2003 (Figure 18).⁶⁸⁴

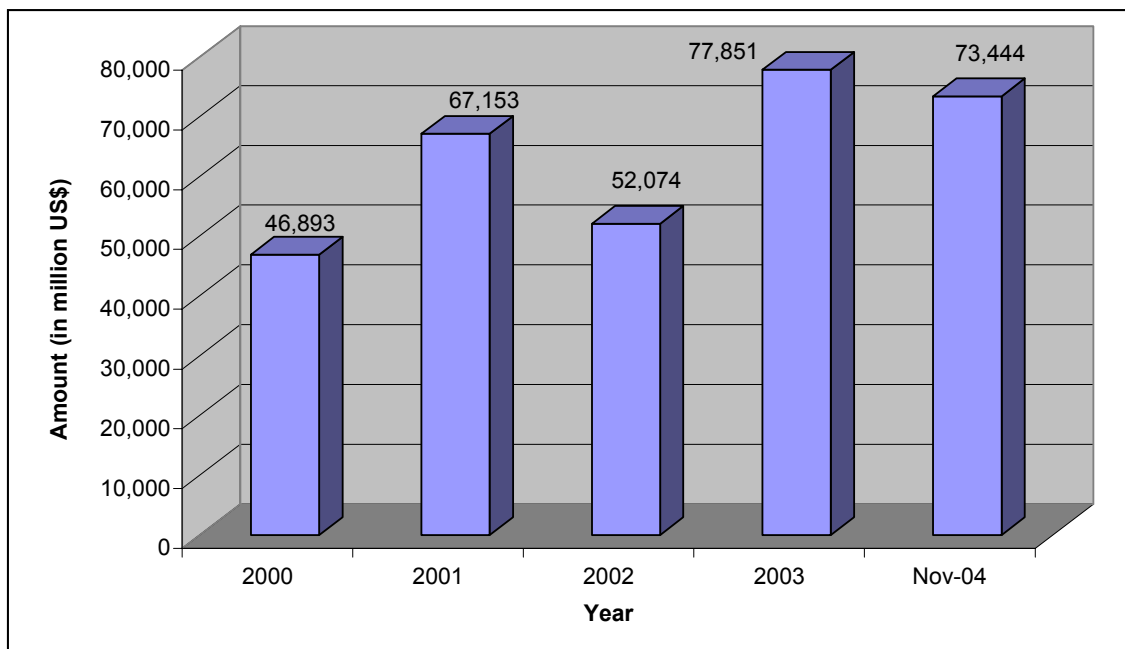


Figure 18: Total US CMBS Issuance Volume (2000-11/2004)⁶⁸⁵

Driving this real estate financial boom over the years were Conduit deals, or multi-borrower securities, as rating agencies called them at that time. As the CMBS market developed itself, it became increasingly dominated by CMBS-Conduits.⁶⁸⁶

The share of CMBS-Conduit loans within the universe of CMBS rose from less than 5% of CMBS issuance in 1992 and 33% in 1996 to more than 50% in 1997, and 75% in 1998 (Figure 19).⁶⁸⁷ Today, the share of Conduit transactions within CMBS is estimated at close to 80%. Large loans, single assets/single borrower, CTL and other loans account for the rest (Figure 20).

⁶⁸³ Cf. Mishra (1998b), p. 20.

⁶⁸⁴ Cf. Anonymous (2001a), p. 12; Sheridan, *et al.* (2003), p. 43.

⁶⁸⁵ Cf. Corcoran and Iwai (2004b), p. 6.

⁶⁸⁶ Cf. Mishra (1998b), p. 20.

⁶⁸⁷ Cf. Mishra (1998b), p. 23.

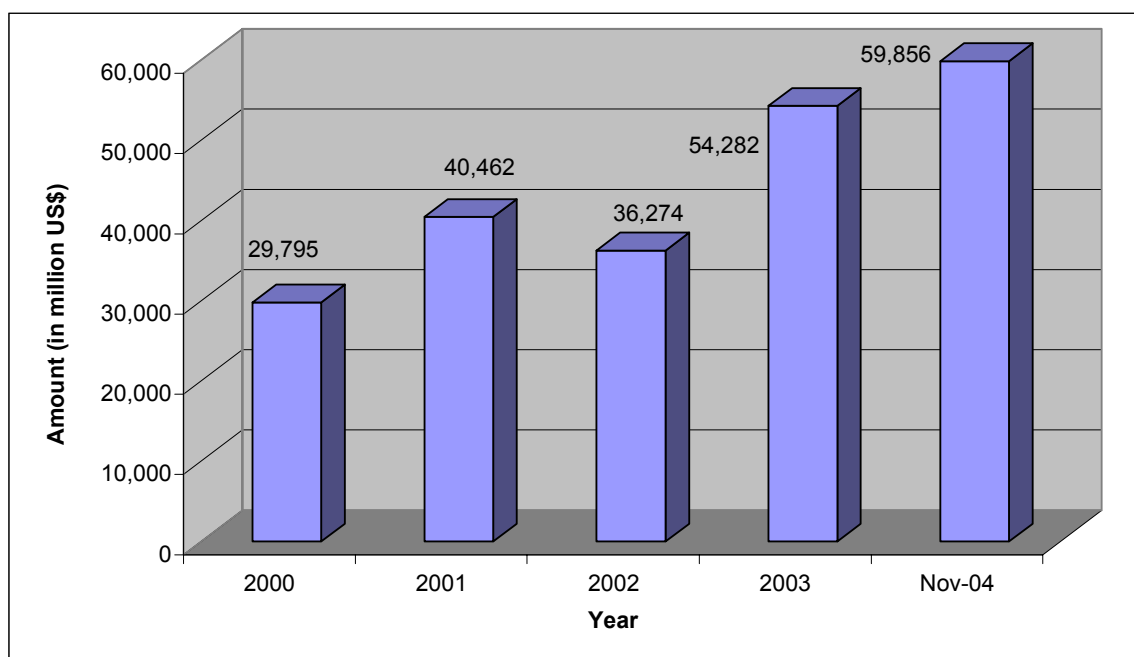


Figure 19: US Conduit-CMBS and Conduit-Fusion Issuance Volume (2000-11/2004)⁶⁸⁸

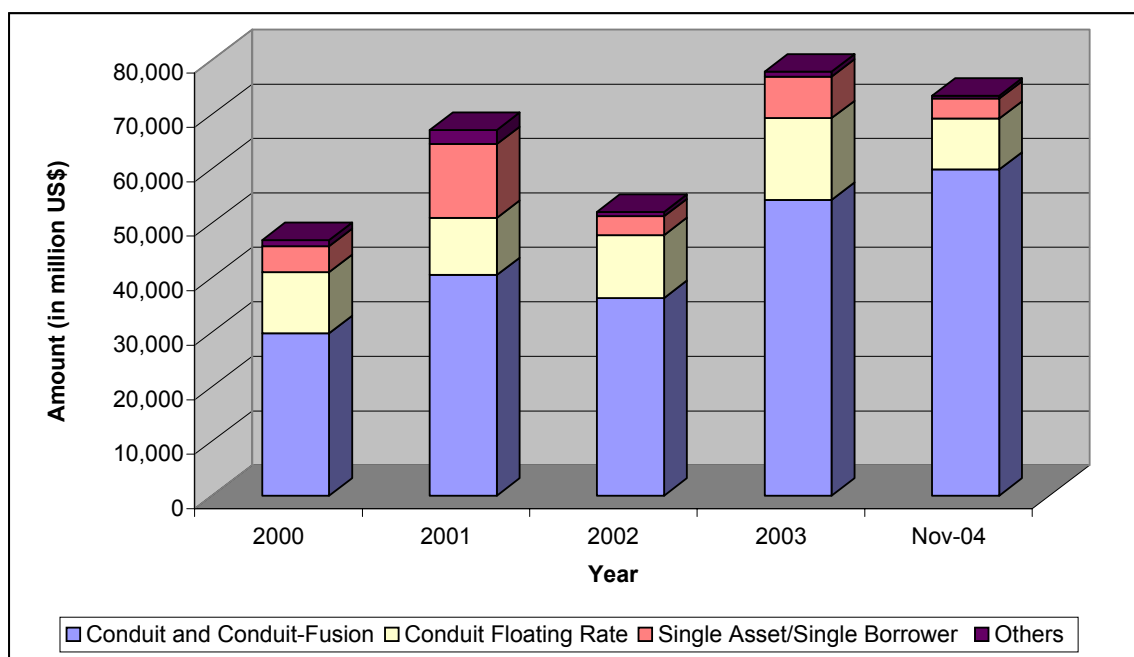


Figure 20: Relative Strength of Conduit-CMBS compared to all others⁶⁸⁹

⁶⁸⁸ Cf. Corcoran and Iwai (2004b), p. 6.

⁶⁸⁹ Cf. Corcoran and Iwai (2004b), p. 6.

The success of the CMBS-Conduits came about because they filled a void for longer term, fixed-rate, and non-recourse mortgage loans for smaller borrowers. The lack of liquidity created by the Savings & Loans crisis created new opportunities for those new non-traditional Conduit lenders. Thus, the highly competitive conduits became the driving force in small commercial loan financing.⁶⁹⁰

The growth of the CMBS market and the success of the Conduit segment can mainly be attributed to the fact that originators are increasingly getting into a variety of new financial products that had previously been covered by traditional lenders such as commercial and savings banks and life insurance companies.

*"Life companies have lost market share.... They once dominated the permanent loan market (5- to 25-year loans). Banks also had big share of it, but banks also tended to be short-term lenders – three- to seven-year loans. While insurance companies competed in terms of spreads and price, banks relied on their relationships."*⁶⁹¹

In the period from 1992 to 1998, the CMBS market grew and diversified dramatically. In addition to achieving tremendous efficiency, the sizes of mortgage pools also became bigger. As a consequent result, this also created a lot of liquidity in the marketplace, which attracted more investors that again made the market grow.⁶⁹²

At the end of the 1990's margins were narrowing, and a battle between Conduit loans and the whole loan market began. In the end, the competition among Conduit originators became so fierce that consolidation within the industry was inevitable. Given the large and always-growing list of CMBS originators in the 1990's, the wave of consolidations in the CMBS industry came in 1998 and 1999. This resulted in a smaller number of big players, especially on the Conduit side.⁶⁹³

⁶⁹⁰ Cf. Peterson (1999), p. 56.

⁶⁹¹ George Fantini, chairman of Fantini & Gorga Inc. Cf. Mishra (1998b), p. 22.

⁶⁹² Cf. Pacelle (1994), p. B1.

⁶⁹³ Cf. Mishra (1998b), p. 20.

The big players that survived include: Deutsche Bank, Morgan Stanley, Lehman Brothers, Credit Suisse First Boston, Bank of America, Wachovia, JP Morgan Chase, Bear Stearns, Greenwich, and Nomura.⁶⁹⁴

The extreme competitiveness in the market place has led to an abundance of capital in the marketplace that can be compared to that in the 1980's. However, despite this abundance of capital, underwriting standards have always remained high. Underwriters today remain concerned about cash flow of the properties they are underwriting. So, Wall Street has done a better job disciplining the real estate lending market than the banks had done in the 1980's.⁶⁹⁵

*"I cannot say we will have a big bust because of the increased cash flow and low interest rates and the reserves lenders are requiring today. Borrowers are getting loans on the basis of their properties... This is what we did not have in the '80s."*⁶⁹⁶

The Conduit-Fusion Market

As part of the ongoing structural development in the CMBS industry, a new trend evolved in the late 1990's. Another sub-asset class close to Conduit-CMBS came into being as more and more financial institutions started to combine Conduit-CMBS loans with larger loans. Therefore, the new class that became a mixture of large loan and Conduit-CMBS was called "Fusion" deals. In fusion deals, large mortgage loans of more than \$50 million on institutional quality real estate are put into Conduit deals where the average loan size remains at about \$4 million. The main driver for this development was that the industry wanted to have bigger deals in order to be more efficient and cost-effective, and "fusions" were the way to do it.⁶⁹⁷

Even though Fusion deals went out of favour for a period following the 1998 Russian debt crisis, they have returned. Today however, issuers are careful and

⁶⁹⁴ Cf. Choe (2003), Interview 13, p. 554.

⁶⁹⁵ Cf. Mishra (1998a), p. 24.

⁶⁹⁶ Hal Rose, Executive Vice President of ARCS Commercial Mortgage Co. Cf. Mishra (1998b), p. 23.

⁶⁹⁷ Cf. Hayre (2001), p. 62.

limit the number of large loans so that a transaction does not get too concentrated as in 1998.⁶⁹⁸

“Fusion deals have become the dominant form of U.S. fixed-rate CMBS issuance, and are expected to remain so for the foreseeable future.”⁶⁹⁹

The Credit Tenant Lease Securitisation Market

Another asset-class within Real Estate Securitisation that has evolved following the wrap-up of the RTC in the early to mid 1990's was Credit Tenant Lease Securitisation (CTL).⁷⁰⁰ Being a lot smaller than Conduit-CMBS, this segment was built on a functioning Sale-Leaseback industry; CTL Securitisation became a Sale-Leaseback transaction with a Securitisation twist. Since capital market investors valued good credit cash flows very highly, compared to commercial banks that purely looked at the real estate, investment banks and advisory firms started to securitise cash flows from credit tenant leases⁷⁰¹ in the private market.⁷⁰²

“The distinction between a traditional CMBS real estate loan and credit lease financing is clear: In a Conduit loan the lender's emphasis is on the real estate, whereas in a credit lease transaction the lender's emphasis is on the quality of the lease.”⁷⁰³

Before 1995-96 the only credit tenant lease loans financed on Wall Street were bondable leases in which the tenant had no lease termination or rent abatement rights whatsoever. However, as time went on new programs and structures got introduced by lenders to allow the securitised financing of properties with triple-net and double-net tenant leases. Financing non-bond leases, i.e., double and triple net leases as credit rather than real estate through the capital markets,

⁶⁹⁸ Cf. Choe (2003), Interview 13, p. 554; Philipp (2004), p. 1.

⁶⁹⁹ Philipp, *et al.* (2004), p. 1.

⁷⁰⁰ Cf. Homer (2002b), p. 14.

⁷⁰¹ Credit Tenant Leases are sometimes also called net leases or bondable leases.

⁷⁰² Issuances in the private market incorporate securities issued under the Rule 144-A. Only so called qualified institutional buyers (QUIBs), that have \$100 million of discretionary income for investment in private securities – excluding treasuries and government obligations – are allowed to buy into these securities. Cf. Jacobs (2003), Interview 19, p. 554.

⁷⁰³ Richards (1999), p. 10.

was made possible when Capital Lease Funding LP (CLF), in 1995, developed the first comprehensive lease enhancement structure which effectively plugs the real estate "holes" in a lease and meets rating agency requirements for a CTL loan.⁷⁰⁴

In the 1990's the industry reached its high point in 1999 during the economic boom, when more than \$4 billion in business was reported in the Credit Tenant Lease industry.⁷⁰⁵

Through the economic downturn in 2000/2001, activities slowed down in this niche market. By 2002, however Credit Tenant Lease Securities came back into favour, fuelled by corporate property supply and strong investors demand. Following the hype in 1999/2000, where a lot of banks got burned, Corporates in the aftermath of that craze had a hard time to satisfy their financing needs. They slid into a banking credit crunch and were pressured to look for new methods of monetizing their "bricks-and-mortar assets" in order to fulfil their capital needs.⁷⁰⁶

Investors on the other side were seeking good and stable securities that were backed by real estate. As some investors in the post-Enron environment grew reluctant to purchase securities that were solely linked to the fiscal health of a bond issuer, the result was a strong increase of interest in securities tied directly to a stable, tangible asset like property.⁷⁰⁷

*"Investors roiled by wild credit markets hope credit-tenant leases are a haven."*⁷⁰⁸

The fact that those deals were secured by leases on actual properties that still had intrinsic value even if the company occupying the property collapsed, led to the niche market suddenly appearing lucrative to so many buyers that some were even clamouring for leases owned by battered issuers, like K-Mart.⁷⁰⁹ As

⁷⁰⁴ Cf. Pollert (1998), p. 96.

⁷⁰⁵ Cf. Sheridan (2000), p. 90.

⁷⁰⁶ Cf. Anonymous (2003q), p. 16.

⁷⁰⁷ Cf. O'Leary (2002), p. 11.

⁷⁰⁸ O'Leary (2002), p. 11.

⁷⁰⁹ Cf. Homer (2002b), p. 14.

an effect the small and mostly local players in the market started to broaden the transaction base. This resulted in different types of credit-tenant lease securities-deals either backed

- by single leases on commercial properties,
- or by more high-volume deals into which a variety of CTL leases on single properties were pooled.

Another effect that could be observed was that the secondary trading of those instruments heated up substantially.⁷¹⁰

“We’re seeing companies that never bought a lease before, and who always favoured senior debt, that are now interested in these securities.”⁷¹¹

Most recently the experience with the performance of some Credit Tenant deals has not been very good. The reason is that a lot of loans in 1997/1998, underwritten as credit tenant loans with secured by underlying mortgages only focused on the credit-worthy tenants. Thus, the loans were done with a debt service coverage of 1 instead of 1.3 or 1.5.⁷¹²

“So from a real estate standpoint they were weakly underwritten. Then it turned out that the environment in which they were done was headed to the worst experience for corporate credit and general entity risk since the end of World War II. So a lot of those transactions, where people were leaning on the credit of the tenant, they were leaning on a weak argument. And then the problem was that the real estate underwriting was not very strong and so the deals performed poorly as you would have expected if you had had a non-credit tenant – a lot of those were retail deals.”⁷¹³

State of Secondary Real Estate market in the US today

CMBS in general has become an integral part of the market, in the modern real estate financing setting. The effect on the property markets is that they have

⁷¹⁰ Cf. O’Leary (2002), p. 11.

⁷¹¹ James McKinney, head of debt capital markets for William Blair. Cf. O’Leary (2002), p. 12.

⁷¹² Cf. Corcoran (2003), Interview 12, p. 554.

⁷¹³ Corcoran (2003), Interview 12, p. 554.

become more disciplined.⁷¹⁴ Since 1994, the influence of CMBS on the real estate market has been enormous as can be observed when looking at US cap rates. Not only has the CMBS market arranged for financing for a huge amount of real estate borrowers, but it has also had an effect on market behaviour and professionalism. There has not been any phase of over-building compared to that seen in the boom phase of the 1980s.⁷¹⁵

*“Our recent success (since 1994) is not a law of nature, but a matter of market vigilance. And this kind of vigilance is not an automatic outcome of public markets (as opposed to private markets), because we had an asset bubble in real estate in the US in the 1980’s with a private market and we had a bubble in stocks in the late 1990’s in a public market. It is not just an issue of public vs. private – it is an issue of markets doing their homework and it is an issue of smart vs. stupid.”*⁷¹⁶

All in all, the state of the overall secondary real estate market in the US today has been influenced by tax and accounting issues as well as by the motivations of the different parties buying, holding and selling real estate. Out of the given circumstances and environments three structures for holding and financing real estate over the public markets have evolved:⁷¹⁷

1. The Real Estate Investment Trust structure (REIT) – equity structure
2. The Mortgage-Backed Security structure (including all CMBS schemes except for CTL) – debt structure
3. The Lease Securitisation structure (CTL) – debt structure

Apart from that not much else has evolved, except for exotic private placements of Securities that have different rights and interests in real estate. But this group is so small that it can be neglected.⁷¹⁸

⁷¹⁴ Cf. Gordon (2000), p. 1.

⁷¹⁵ Cf. Corcoran (2003), Interview 12, p. 554.

⁷¹⁶ Corcoran (2003), Interview 12, p. 554.

⁷¹⁷ Cf. Robinson (2003), Interview 9, p. 554.

⁷¹⁸ Cf. Robinson (2003), Interview 9, p. 554.

Looking at the evolution of the overall Mortgage-Backed Security market (RMBS and CMBS) it becomes evident that the market went through all four stages of the evolution model introduced in chapter 4.2.5. The market went from an **experimental stage (1966-1984)** – first issuances of Residential Mortgage Pass-Through Securities (1966), first GNMA-guaranteed MBS (1970), first CMO (1983), first CMBS (1984) – to a **ripening stage (1984-1989)** – the RMBS market was maturing fast, but the CMBS market was still in its infancy.⁷¹⁹ The FIRREA Act marked the start of the third stage – **the growth stage (1989-1996)** fuelled by the standardisation in the RMBS world and the institution of the RTC that started issuing large CMBS. After the wrap up of the RTC, the growth went towards the non-government sponsored sector, with a strong growth in CMBS vehicles.

The CMBS market today is in a **standardisation stage (1996-present)** – the product has become a commodity in the market place. This has implications for the market's future. The outlook for the US CMBS market is not clear. It will definitely continue to be a very competitive market place on the lending side. On the issuing side, the volume has been increasing recently and it is expected to keep on rising to higher levels. During the last 10 years, this method of financing has become very attractive for many real estate owners and borrowers, albeit the strong covenants governing those transactions. All in all, the competition in the market place puts a lot pressure on pricing and ultimately on the investment bank's margins. Wall Street firms are always looking for new opportunities: the next structure, product or transaction, which will provide a competitive edge or produce greater profits. This will lead to even more financial engineering and probably more arbitrage business.⁷²⁰

“So the ‘question of the day’ is really: Now that the market is so commoditized and efficient, where will it go next?”⁷²¹

⁷¹⁹ Cf. Appendix: Milestones the US Secondary Mortgage Market, p. 552.

⁷²⁰ Cf. Choe (2003), Interview 13, p. 554.

⁷²¹ Choe (2003), Interview 13, p. 554.

4.3.2.3 Identified Transaction

As opposed to the Singapore analysis, the US analysis will not go into detail on each transaction that was ever done in the US, as there are thousands of different CMBS transactions since the inception of the market. The following part will only go into the different transaction schemes, real estate financing environment, business models and alternatives that have been identified in the US. Under each scheme, a mass of transactions can be identified. Identifying those would, however, go beyond the limits of this dissertation. Hence, the goal for this chapter is solely to identify and introduce the different transaction schemes and set the scene for chapter 4.3.4, which will go into more detail on the borrowers, assets, motives and structures of the different schemes.

All of the different transactions schemes in the US are mortgage loan related, i.e. even if real estate cash flows are sold (as proposed for Real Estate Securitisation), they are structured into interest and principal of a mortgage loan.⁷²² Due to that fact the term Commercial Mortgage-Backed Securities (CMBS) constitutes the generic term for all commercial real estate related Securitisation transactions in America. Under CMBS the following transaction/deal schemes/types can be identified:⁷²³

1. Single Asset/Property – Single Borrower CMBS

This transaction scheme incorporates one property or one borrower. Thus, those transactions are dependent on the quality of the underlying property and the sponsor's credit.

2. Large Loan CMBS

Those transactions incorporate a small number of large mortgage loans on commercial real estate. The deal is dependent on the sponsor's credit and on the quality of the underlying properties.

3. CMBS – Conduit⁷²⁴

⁷²² This has bankruptcy reasons, and it makes the structuring easier and more tax efficient, as it then qualifies for a REMIC vehicle.

⁷²³ Cf. Wheeler (2001b), p. 410.

⁷²⁴ Those transactions are sometimes also called stand-alone transactions as they stand alone without the borrower's credit.

Those transactions are independent from the sponsor's credit, the underlying granular portfolio of small mortgage loans on commercial property serves as credit enhancement for the investors. There are two types of Conduit transactions:

- a. **Conduit-CMBS** (the portfolio only consists of small mortgage loans)
- b. **Conduit-Fusion** (the portfolio primarily consists of small mortgage loans and a small number of large loans)

4. Credit Tenant Lease Securitisation

Those transactions are totally independent of the sponsor's credit. They are dependent on the property's tenant credit and partly on the quality of the property. There are three types:

- a. **Sale-Leaseback** – Borrower is a Corporation: it represents the funding for a classical credit-rated Corporate Sale-Leaseback deal.
- b. **Built-to-Suite** – Borrower is a Developer: it represents the construction funding for the built-to-suite construction of a credit tenant.
- c. **Outright Acquisition** – Borrower is a third-party investor: it represents acquisition funding for an investor that buys a building with a credit tenant lease on it.

Single Borrower/Single Asset Transactions

There are 'Single Borrower' and 'Single Asset' deals, but most of the time the single borrower deals are not single asset. Usually there is a diverse portfolio of properties owned by one borrower underlying single borrower deals.⁷²⁵

In the past especially large real estate corporations have issued CMBS directly at the capital markets, which are called direct issuance transactions. In such a deal, a company hires an underwriter⁷²⁶ to help structure the deal and to sell the

⁷²⁵ Cf. Choe (2003), Interview 13, p. 554.

⁷²⁶ In Europe and Asia this would be the arranger.

bonds. However, the underwriter (which is usually an investment bank) simply acts as an agent and does not have any capital at risk for the sale of the bonds. The real estate corporation takes the market risk of the bonds being sold and at what price. The transaction is structured in the way that there is a large loan being securitised as a CMBS that is secured by mortgages over the properties underlying the transaction. Since the volume of such transactions has to be very high, it has to be a very large corporation issuing the CMBS. Generally these companies do not want to sell their assets but CMBS provides an efficient source of financing for them. So, the main motive for the company to engage in such transactions is to lower its cost of capital.⁷²⁷

Large Loan Transactions

Large Loan transactions incorporate mortgage loans made to developers, commercial real estate operators and investors on institutional quality real estate. The minimum size of a loan in a Large Loan transaction is \$20 million, but the gross of the loans that are made is usually not below \$60 million.⁷²⁸

Conduit-CMBS Transactions

Conduit-CMBS deals securitise mortgage loans that have been originated for the sole purpose of Securitisation and that have a certain size. Those loans are small mortgage loans on commercial properties and have an average size of \$6 million.⁷²⁹

Conduit-Fusion Transactions

'Fusion' deals are mixture of traditional Conduit-CMBS transactions and large loan deals. In essence, the transactions consist of a typical Conduit loan component – small commercial mortgage loans that are originated for the sole purposes of Securitisation – as well as a large loan component – large commercial mortgage loans on institutional quality real estate that could also be placed in the banking market. Hence, fusion deals incorporate large loans of

⁷²⁷ Cf. Choe (2003), Interview 13, p. 554.

⁷²⁸ Cf. Boeckmann (2003), Interview 15, p. 554.

⁷²⁹ For more detail confer chapter 4.3.2.1.

more than \$50 million that are put into Conduit deals where the average loan size remains at about \$4 million.⁷³⁰

Real Estate Financing in the US – CMBS Business Model⁷³¹

Real Estate Financing in the US has become a very standardised and efficient process. The real estate financing value chain has been split up and the real estate financing industry has segmented itself.

Mortgage banks, Thrifts and Commercial Banks for example only deal with underwriting and originating loans. The banks do not keep the loans in their portfolio anymore. They originate the loans, sell them and then do the servicing of the loans. After they have sold the loans they can underwrite and originate new loans. So, they have focussed themselves on their core competencies of underwriting and servicing loans. Investment banks on the other hand most of the time do not underwrite loans themselves, but they buy mortgage loans, warehouse and securitise those.⁷³²

If a bank is the originator of a loan, depending on what the asset warrants, it can either provide floating rate/short term or fixed rate/long term financing. Then the bank can put it into different types of executions (depending on the size and quality of the mortgage collateral):⁷³³

1. The bank keeps the loan on their balance sheet.
2. The bank syndicates the loan to other banks.
3. The bank puts it into a Securitisation.

For a real estate underwriter and lender that wants to go down the Securitisation execution path, there are three alternatives:⁷³⁴

- A. He can set-up his own Conduit, originated the loans, warehouse them and place all the bonds himself.

⁷³⁰ Cf. Mishra (1998b), p. 20.

⁷³¹ Cf. Boeckmann (2003), Interview 15, p. 554.

⁷³² Cf. Yang (2003), Interview 16, p. 554.

⁷³³ Cf. Boeckmann (2003), Interview 15, p. 554.

⁷³⁴ Cf. Boeckmann (2003), Interview 15, p. 554.

- B. He can venture with fixed income placement players (mostly investment banks) that will take over the placement and issue the bonds.
- C. He can underwrite the loan and then sell it to the Conduit with the best possible fit for his mortgage loan.

The reason why most lenders do not choose Alternative A and structure their own Conduit is that it does not make sense for them to have it. This decision results out of the negative answer from the following two questions:⁷³⁵

- How frequently does the bank want to come to the market with a transaction?
- How frequently does the bank want to turn its cash flow?

If a lender has its own placement program, he will have to invest a lot of money, in order to make sure that he originates enough mortgage loans, he has the financial capabilities to warehouse the loans for a certain timeframe and he has the placement capability that he needs to place the bonds. It is a very expensive endeavour:

“...a lot of the banks have lost a lot of money on that. There will ultimately be only a few global players that have that volume.”⁷³⁶

The second choice – Alternative B – is to work with fixed income placement players that have the placing capabilities. This still leaves the real estate lender with his own franchise. Hence, this takes a lot of flexibility away from the lender since he is captive to his own program. The bank will spend a lot of time accumulating mortgage loans in a warehouse and will have to hold the warehouse line for more time than he would need, if he sold the underwritten mortgage loan right away.⁷³⁷

With Alternative C, the lender can work with different investment banks and Conduit programs, and can turn his capital more quickly. He hence does not have to build up a billion dollar portfolio to then securitise it under his own

⁷³⁵ Cf. Boeckmann (2003), Interview 15, p. 554.

⁷³⁶ Boeckmann (2003), Interview 15, p. 554.

⁷³⁷ Cf. Boeckmann (2003), Interview 15, p. 554.

name. He can build up a lot smaller amounts (e.g. \$250 million) and then go to another Investment Bank that places the CMBS.⁷³⁸ Usually with every loan that this lender originates he can have different target CMBS portfolios.⁷³⁹

In this respect, the lender will go to different investment banks and will try to pool the lender's mortgage loan together with the mortgage loans that the investment banks already have in their portfolios. Depending on who has a certain set of other mortgage collateral that best fit to the bank's mortgage loan will become the buyer of the loan. The main question in that regard is: 'Which collateral makes the most sense in what Portfolio?'

*"It is all about combining cash flows in the way that they get the best subordination levels for the most efficient capital structure for the bond."*⁷⁴⁰

Funding Alternatives for Real Estate Investments⁷⁴¹

During the last 20 years, the funding alternatives for real estate investors in the US have come out to three alternatives (depending on the loan term, the borrower's inclination to recourse and covenants, and the real estate's debt capacity):

1. The borrower can go to a bank and get a traditional mortgage loan from a bank or an insurance company.⁷⁴²
 - a. Bank loans can be 5 years or shorter
 - b. The borrower has to sign the loan personally to some degree (full-recourse or limited recourse).
 - c. The borrower is subject to Loan-to-Value and Debt Service Coverage Ratio constraints (75% LTV and 1.3 – 1.35 DSCR).
 - d. The terms of the loan are flexible and subject to negotiations.

⁷³⁸ The Securitisation of the mortgage loans can come in different forms of transaction schemes depending on the size of the asset (i.e. the mortgage loan): either Large Loan, Conduit or Conduit Fusion CMBS.

⁷³⁹ Cf. Boeckmann (2003), Interview 15, p. 554.

⁷⁴⁰ Boeckmann (2003), Interview 15, p. 554.

⁷⁴¹ Cf. Jacobs (2003), Interview 19, p. 554.

⁷⁴² Cf. Jacobs (2003), Interview 19, p. 554.

2. The borrower can choose to get a loan through a CMBS transaction (Single Property/Single Borrower, Large Loan, Conduit-CMBS, Conduit-Fusion).⁷⁴³
 - a. A CMBS loan typically is 20 to 25 years in amortization with a 10-year balloon payment.
 - b. It is a non-recourse loan.
 - c. The borrower is subject to Loan-to-Value and Debt Service Coverage Ratio constraints (75% LTV and 1.3 – 1.35 DSCR).
 - d. There will be tough covenants on the CMBS loan (concerning second mortgage loans, prepayment, sale of asset etc.).
3. If the tenant has a good credit standing (i.e. investment grade credit), the borrower can go to an investment bank and get a credit tenant loan (CTL).⁷⁴⁴
 - a. A credit tenant loan can be as long as the lease is. Usually at least 15 years.
 - b. It is a non-recourse loan to the borrower. The borrower is banking on the credit of the tenant.
 - c. There exist no Loan-to-Value and Debt Service Coverage Ratio constraints, because in a credit tenant loan the Loan-to-Value is calculated on the basis of the present value of the credit tenant's lease cash flows. So, regardless of the real estate value, the real estate owner (i.e. the borrower) can achieve a LTV-ratio of up to 100% and more.
 - d. The covenants on credit tenant loan contracts are also tough, but the transfer of property is generally not prohibited.

The main difference for the borrower choosing between a CTL and a Conduit-CMBS transactions is the attainable Loan-to-Value ratio. If there is just one tenant in the real estate, the tenant has an investment-grade credit rating and

⁷⁴³ Cf. Jacobs (2003), Interview 19, p. 554.

⁷⁴⁴ Cf. Jacobs (2003), Interview 19, p. 554.

the lease is a bondable lease, then most certainly the LTV on the credit tenant loan is higher than on the Conduit loan.

Looking at the difference from an efficiency perspective, CMBS is a very standardized and efficient market, whereas CTL Securitisation is an inefficient market. This inefficiency creates opportunity for small players that have an insight-track. So, the margins are higher. So, CTL Securitisation “really is a win-win-win situation”, i.e. the arrangers make high margins, the borrower gets high LTVs and the investor can buy investment grade corporate bonds with an underlying real estate.⁷⁴⁵

For example, there is a building with a 20-year lease on it. The Conduit-CMBS and the Bank underwriter's value is \$100 million and so is the credit tenant loan underwriter's value. The difference lies in the LTV – the CTL lender can give \$110 million on a \$100 million value, whereas the other lender will only lend \$75-85 million on a \$100 million. The CTL lender is taking a lien on the property, but his lending is not constrained by the value of the property, because he is lending against a credit tenant lease; i.e. against a long stream of cash flows and the credit rating of the tenant. Above that the CTL financing is non-recourse financing and 20 year fully amortizing. Also the financing leaves the borrower with a great amount of flexibility: the structure is set up such that the borrowing entity can freely transfer its ownership interest in the property, without lenders consent generally. And it is tax efficient.⁷⁴⁶

In the case of a CMBS loan on the same property not only LTV- and DSCR-restrictions would apply, but also the borrower would not be able to sell their properties. Especially in the Hotel industry this fact led to a great turmoil and an up-rise against CMBS loans:

“But just when the industry needs to reshuffle assets and spruce up properties, borrowers are painfully discovering that the bonds are a ball and chain.”⁷⁴⁷

⁷⁴⁵ Cf. Jacobs (2003), Interview 19, p. 554.

⁷⁴⁶ Cf. Jacobs (2003), Interview 19, p. 554.

⁷⁴⁷ Cf. Biddle (2002), p. 38.

For conduit sponsors, loans that are supposed to go into a Conduit pose another problem – it has to make sure that this one loan asset is homogenous with the entire pool, whereas in a CTL it does not matter if the loan is homogeneous or not. In fact, the arranger in a CTL could put the one mortgage loan into a private security and sell it out in a one-loan-transaction the next day. Most of the CTL deals are one loan Securitisations.⁷⁴⁸

Conduit originators on the other hand have to be very picky with their loans. The loan must not be an outlier with respect to the Loan-to-Value for two reasons:⁷⁴⁹

- Rating agencies do not like that
- If the bank is going to sell the subordinate tranches, it has got to get the B-piece buyer to agree.

So, the loans have to be very consistent and this takes away a lot of flexibility from the lender and the borrower.

Comparable Product to Real Estate Securitisation in the US

As Commercial Mortgage-Backed Securities only partly overlaps with Real Estate Securitisation as defined in chapter 3, there is another product that also partly overlaps (from a conceptual standpoint). The instrument does not fall under Securitisation in the traditional sense, but that implicitly securitises real estate cash flows in the capital markets; it is unsecured debt to Real Estate Investment Trusts (REITs)

Unsecured corporate debt to REIT's is structured in such a way that the investors in the transactions are looking to the unencumbered assets, i.e. the values to pay off their bonds. In the worst case they can go and take those assets and have them sold to regain their capital. Hence, what the unsecured lender will look at is the values of the properties that are unencumbered with mortgages. The investors will subtract all the secured debt (the encumbered properties) from the value of the company, so they can estimate what is left

⁷⁴⁸ Cf. Jacobs (2003), Interview 19, p. 554.

⁷⁴⁹ Cf. Jacobs (2003), Interview 19, p. 554.

over in case of bankruptcy after all secured lenders have been paid off. To the investor who wants to own the cash flows.⁷⁵⁰

“For instance if all that you are going to secure is 10 years worth of lease payments, then this is absolutely just like corporate debt. If you are going to put up the property as a collateral, then it is absolutely the same as a CMBS. And, if I put up the tenants’ credit rating, then it is just like a credit tenant lease Securitisation.”⁷⁵¹

So, the instrument is not backed by a mortgage or anything else, and the cash flows to pay off the debt are derived out of the companies real estate. Drawing the analogy to Real Estate Securitisation, REITs that engage in unsecured debt are essentially selling their future rental cash flows from unencumbered properties, which are structured into a bond.

4.3.3 Environments

The following part will go into the different environments governing the Securitisation market in the US. (incl. CMBS)

4.3.3.1 Regulatory/Legal Environment

The regulatory environment can be seen as the environment regulating the banking system or the environment regulating the market as a whole (i.e. the whole Securitisation market). In the case of the US, which is different from the case of Singapore, the regulatory authorities really only regulate the banking system but they thereby influence the Securitisation market (i.e. also other asset classes apart from bank and loan Securitisations). The regulation of the banking system was also a driver in the evolution of the market, as Thrifts were deregulated in such a way that the ‘loan-underwriting craze’ in the 1980’s nearly led to the failure of the whole banking system. This in return – through the involvement of the RTC – led to the evolution and broad acceptance of Commercial Mortgage-Backed Securities in the US debt market. So, this chapter will look at both: Bank Regulation and Market Regulation, as both have influenced and will keep on influencing the CMBS market.

⁷⁵⁰ Cf. Mitsoff (2003), Interview 11, p. 554.

Regulatory System in the US

Regulation in the US can be two different things. On the one hand there is bank regulation, which is done by the banking supervision agencies, and on the other hand there is the Security Exchange Commission (SEC) that regulates the financial and capital markets (i.e. brokers, security dealers and the investment banks). So, if an originator securitises assets, he has to meet the SEC requirements (i.e. registration requirements and so on). But if the originator is a bank, then it also has to follow the bank supervision criteria on Asset-Securitisation. This is also the case if the bank is an investor in Asset-Securitisations, then it has to follow the bank supervision criteria as well.⁷⁵²

Effectively, there are three banking agencies: Federal Deposit Insurance Corporation (FDIC), Office of the Controller (OCC), and the Federal Reserve (Fed). Banks are chartered either as state banks or national banks. The OCC supervises all national banks – that is the big banks: Citibank, Bank One. The FDIC supervises the state banks that are not members of the Federal Reserve System. Banks that are members of the Federal Reserve System – such as Chase or Bank of New York are supervised by the Federal Reserve. The FDIC supervises the vast majority of smaller banks, the community banks. These rules require a lot of coordination, as for example there is a Bank of America Holding Company and a Bank of America Bank. Both are regulated by two different parties.⁷⁵³

In addition to the Federal Deposit Insurance Corporation (FDIC) being the supervisor for state-non-member banks, the FDIC is also the insurer for all the savers' deposits in all banks. In the case of bank failure the FDIC is set in to payoff a large portion of the deposits of the savers, generally up to \$100,000

⁷⁵¹ Cf. Mitsoff (2003), Interview 11, p. 554.

⁷⁵² Cf. Boemio (2003), Interview 17, p. 554.

⁷⁵³ This is somewhat comparable to the situation in Germany and the UK. There also has to be done a lot of coordination between the Bundesbank and the BAFin, and between the Bank of England and the FSA, respectively. So, in all cases they get together to make sure that they have a uniform view. However, the US system is still the most complex. Cf. Boemio (2003), Interview 17, p. 554.

per depositor. In that respect, the FDIC has a role in ensuring that banks do not take excessive risks.⁷⁵⁴

So, the supervision agencies are looking at Securitisation from two different angles:⁷⁵⁵

- I. From the angle of the supervised banks doing Securitisation.
- II. From the angle of the supervised banks buying the notes from Securitisation.

Most of the supervision rules that are done in the US are done on an inter-agency basis. So, the FDIC works together closely with the Fed and the OCC. All the agencies supervise the banks from both Securitisation angles.

In the US the regulatory environment is primarily made off of the bank supervision agencies. The SEC plays rather a minor role.⁷⁵⁶

Bank Regulation in the US does not favour synthetic Securitisations – that is why there are not many synthetics in the US and the True Sale transactions are prevailing. Synthetics Securitisations are not as big in the US as they are in Europe. There are only some banks that do that kind of Securitisation in the US. Compared to Germany the prevailing reasons are that in the US banks do not have tax problems doing true sale Securitisations. For German banks apart from the tax problems, the other reason is that if a bank had the choice between doing a true sale or a synthetic transactions, synthetics would be easier and faster to do, because the biggest part of a synthetic transaction is the Senior Credit Default Swap with only one counterparty.⁷⁵⁷

Moreover, in the US Synthetics are not feasible because the leverage ratio requires banks to hold capital on balance sheet assets, which would include synthetics, making it less attractive for banking institutions to enter into these transactions. There are effectively two capital ratios – a risk based capital ratio (tier 1 and tier 2 capital) and a leverage ratio. This is the difference of the US

⁷⁵⁴ Cf. Cave (2003), Interview 18, p. 554.

⁷⁵⁵ Cf. Cave (2003), Interview 18, p. 554.

⁷⁵⁶ Cf. Ashenmil (2003), Interview 14, p. 554.

⁷⁵⁷ Cf. Cave (2003), Interview 18, p. 554.

supervision and European supervision. Leverage ratios have existed in the US for 20-30 years and after Basel I the regulatory agencies retained those. The leverage ratio requires banks to hold enough capital. So, in the case of synthetics, the assets are never moved off the books; in essence this might give the banks some risk based capital relief (as in the case of Germany), but because of the leverage ratio it is not as attractive as in Europe, where it is totally based on risk-based ratios. There are only few banks that do synthetic Securitisations in the US, but not nearly to the extent as to which it is done in Europe.⁷⁵⁸

Generally banks in the US that do Securitisations have to sell the junior notes first, in order to get investor interest in the senior notes. For the junior notes – particularly the very low quality or unrated tranches – there are very few investors. So, the banks usually have to retain those tranches. The regulatory agencies' focus is to ensure that those banks holding those tranches have sufficient capital to withstand losses. The capital required on lower rated or unrated subordinated tranche is generally very high, reflecting the fact that if they are retaining those tranches, they really have not transferred much of the risk on the underlying assets to the market.⁷⁵⁹

Under the current rules, if a bank is buying the unrated tranche in a Securitisation, it has to put up one dollar of capital against every one dollar of face value in the unrated tranche. In that case for the regulators, it does not matter if the bank is buying the bonds as an investor or as the originator of the transaction. Under the old rules: if a bank were an investor in the unrated piece, it would only have had to put up 8% on the face value of the unrated bonds.⁷⁶⁰

*“This is not a lot of money, if you talk about the higher risk tranches. We have gotten rid of that by implementing our rules. So we have taken that potential of cross-shareholdings out of the game. This business is treated as if there was no risk transfer.”*⁷⁶¹

⁷⁵⁸ Cf. Cave (2003), Interview 18, p. 554.

⁷⁵⁹ Cf. Cave (2003), Interview 18, p. 554.

⁷⁶⁰ Cf. Cave (2003), Interview 18, p. 554.

⁷⁶¹ Cave (2003), Interview 18, p. 554.

Hence, the conclusion is that going forward under the Basel II regime, banks will need to find junior investors, or they will not be able to do those transactions, as they become expensive and unfavourable.

Regulatory Changes

Over time, there have been several iterations of regulatory changes in the US regulatory environment that gave some spur to the bank Securitisation market. In 1995, the risk exposure rules were changed to favour Securitisation. This was a spur for the market. Then in November 2001 rules were issued, which basically introduced the Basel II - standardized approach. From then on, a bank could essentially increase and decrease the use of capital⁷⁶² by using external ratings. So, the range goes from total capital deduction in the case of unrated pieces, to a 200% risk weighting for 'BB' pieces, down to a 20% risk weighting for 'AAA', which basically equals 1.6% in bank capital.⁷⁶³

The basic rules of Basel II with respect to Asset-Securitisation are already in place – particularly the standardized approach. The US Securitisation rules that have been in place since 2002 have effectively been the basis for the Basel II Securitisation proposals in the standardized approach. Additionally to the standardized approach, the US banks that have been involved in Asset-Securitisation of any kind also had to be compliant with the leverage ratio rules. Those rules are actually the big constraint for the banking system, as it sets the ratio of tier 1 capital to total assets on the balance sheet.⁷⁶⁴

Non-Bank Regulation

In Asset-Securitisation, the US banking industry is standing in a strong competition with the non-banking industry. This results out of the fact that besides banks, there are non-banks – like GE Capital – strongly involved in the

⁷⁶² The required capital is always calculated by the nominal amount multiplied with 8% and the applicable risk weighting.

⁷⁶³ Cf. Boemio (2003), Interview 17, p. 554.

⁷⁶⁴ The leverage ratio is also the reason why the Pfandbrief/European Covered Bond concept does not work in the US. The Pfandbrief is different from a Securitisation; it is a Mortgage-Backed Bond, which is essentially a general obligation of the issuing bank to pay back the securities. The transaction is collateralized by the mortgage loans that are still on the banks' balance sheets, so that there is no capital break per se: not only for risk base, but also for leverage. Cf. Boemio (2003), Interview 17, p. 554.

US Asset-Securitisation market. Depending on the firm, some companies are regulated by the states, others by securities regulators and if it is an insurance company getting involved in a Securitisation then the insurance regulators will oversee them. However, most of those companies are not regulated at all. Supervisory agencies do not get involved with the non-banks because they do not insure their deposits. Overall that is a different market because they are subject to market discipline. If companies like GE Capital get involved in something wrong or very risky, then investors will recognize that and the firm will have a tough time to raise capital. That is a very strong influence and a severe disciplining mechanism.⁷⁶⁵

The SEC is the regulatory instance for placements in the US – 144 A private placement. Issuers of private placements under the 144A rule have to comply with the SEC. In order to facilitate such placements with institutional buyers, the SEC has set up certain rules to streamline the registration requirements for Securitisations.⁷⁶⁶

1. 144A needs to be a private placement.
2. Only very large investors are allowed to participate.
3. There are not more than a total a 100 investors allowed.

The 144A rule for private placements has been a spur to the market, since most of the deals that fall under the threshold for large public placements do not have to do all the other registration requirements that need to be done for public placements. Hence, they incur less costs and take less time to place. Especially for the Credit Tenant Lease Securitisation transactions, which are traditionally smaller than Conduit or Large Loan CMBS, this has been a help. The downside is that the trading volume is not very high, but it does not necessarily need to be, as most institutional investors hold the bonds until maturity.⁷⁶⁷

One of the main principles that Basel II is trying to introduce for banks is to become more risk-sensitive. In that sense, banks cannot be more risk sensitive,

⁷⁶⁵ Cf. Cave (2003), Interview 18, p. 554.

⁷⁶⁶ Cf. Boemio (2003), Interview 17, p. 554.

⁷⁶⁷ Cf. Boemio (2003), Interview 17, p. 554.

when they are allowed to buy high risk assets at a 100% risk weighting, and take on low risk assets for only a 20% risk weighting. There has to be an equal distribution of risk and reward. Going forward, this will lead to a lower participation of banks in high-risk asset. For Asset-Securitisation this will result in market segmentation. It is most probable that banks will invest into higher rated investment grade tranches – preferably ‘AAA’ and ‘AA’, and non-banks that do not underlie such a strong supervisory scrutiny will be investors in the lower rated tranches. For the case of real estate finance this means that investors and developers that used to be strongly dependent on bank loans will have to shift towards non-bank funding, i.e. CMBS Conduits or non-bank originators like GE Capital or GMAC (General Motors Acceptance Corporation).

“Again, our concern is that the risk is transferred outside the banking system.”⁷⁶⁸

Even though most of the regulatory changes over time came from the banking regulatory side and even though those changes only influenced the banking Securitisation market, it also had implications for the Securitisation market as a whole. The reason is that as asset classes diversified and the market grew the investor appetite for Asset-Securitisations of any kind grew. This implicitly had an effect on the CMBS market that got more attention from the investors. Moreover, if it had not been for the Savings & Loans’ Crisis in the 1980’s, the involvement of the regulatory bank supervision and the move to institute the Resolution Trust Corporation to sell off all the bad real estate loans, then the CMBS market would probably not have been such a great evolution as it has had. So, whereas the regulatory environment only has an implicit on-going effect on CMBS, it was the outright involvement of the regulatory authorities in the late 1980’s and early 1990’s that made the market develop in the way that it did.

Legal Environment

The legal system in the US, which is based on case law, is very sound. It was always legally possible to set up bankruptcy remote structures. Over time, SPVs

⁷⁶⁸ Cf. Cave (2003), Interview 18, p. 554.

and bankruptcy remote structures have only been subject to minor changes in case law.⁷⁶⁹

Most of the SPVs in US Securitisation are structured on-shore (depending on the underlying asset). The state of Delaware has the most favourable trust laws and therefore most Securitisation-SPVs in the US are resident in Delaware.⁷⁷⁰

4.3.3.2 Tax Environment

The tax environment was very important for the evolution of the Commercial Mortgage-Backed Securities market in the United States.

“Also, the tax and accounting issues are very important and hazardous. In our market they have pushed us into the choices that we have today. The Mortgage-Backed Security market did not take off in the US until it was clarified that the Mortgage-Backed Security pool was ordered not to be taxed on the entity level.”⁷⁷¹

The REMIC Structure

The “Tax Reform Act of 1986”⁷⁷² had far-reaching and beneficial effects for the Mortgage-Backed Securities market in general. Especially the Commercial Mortgage-Backed Securities market was lifted off the ground by this new tax treatment. The law facilitated the business by promising investors a single-tier tax and thereby laid the basis for a new issuance explosion. The investors only had to pay normal income tax on the interest part of the bonds.⁷⁷³

Before 1986 and the Tax Reform Act, most mortgage securities were pass-through securities. They were issued as ‘grantor trust certificates’ or as corporate debt. In the mortgage securities context, a grantor trust is a trust that holds mortgages or mortgage securities in which the grantor or investors own undivided interests. Properly structured, a grantor trust was not taxed; only its beneficiaries were. However, this started to pose a problem when CMOs came

⁷⁶⁹ Cf. Choe (2003), Interview 13, p. 554.

⁷⁷⁰ Cf. Robinson (2003), Interview 9, p. 554.

⁷⁷¹ Robinson (2003), Interview 9, p. 554.

⁷⁷² The REMIC rules introduced under the act became effective for securities issued after 31 December 1986. Cf. Levitin (1987), p. 27.

along and issuers intended to issue multiple-class securities, with each class having different maturities and yields. Under the so-called Sears regulations,⁷⁷⁴ a trust risked being treated as an association taxable as a corporation if it issued numerous classes of interests that disproportionately divided ownership of investment assets (such as mortgages) or the cash flow from a pool of assets. Hence, those trusts were treated as an association that was taxable as a corporation and consequently the investors were subject to double taxation. Income from the mortgage pools was taxed at the trust level and taxed again when it was distributed to holders of interests in the trust. Consequently, the results were that mortgage pass-through securities structured as trusts only had a single class of interest as opposed to multiple classes in a CMO issuance. Therefore, buyers were stuck with undesirable attributes of their securities, such as thirty-year maturities.⁷⁷⁵

The Tax Reform Act included rules that authorized the creation of a new tax entity for Mortgage-Backed Securitisations, the Real Estate Mortgage Investment Conduit (REMIC). The REMIC was defined as a new pass-through tax entity that both holds real estate mortgages and issues securities that represent interests in those mortgages. The bill clarified the federal income tax treatment of Mortgage-Backed Security transactions, allowed for tranching CMO structures (with different maturities and priorities), and thereby spurred the development in the new Commercial Mortgage-Backed Securitisation market.⁷⁷⁶

A REMIC can be any legal entity: a corporation, trust, partnership, or association, but it does not have to be a separate legal entity. To be treated as a REMIC for tax purposes, an entity must make an election on its tax return and this election stays valid as long as the REMIC qualification conditions are met. In the case of an SPV not fulfilling the REMIC criteria, it was not considered a REMIC. Hence, it wouldn't be tax-efficient and the structure was considered a

⁷⁷³ Cf. Robinson (2003), Interview 9, p. 554.

⁷⁷⁴ The regulation got its name from a precedent transaction done by Sears Mortgage Company in 1984. The CMO was intended to combine the tax advantages of the trust with the benefits for investors of multiple class securities. Cf. Levitin (1987), p. 28.

⁷⁷⁵ Cf. Levitin (1987), p. 28.

⁷⁷⁶ Cf. Choe (2003), Interview 13, p. 554.

taxable mortgage pool and the SPV was taxed as a corporation. So, by qualifying as a REMIC, the SPV effectively avoids the corporate double tax.⁷⁷⁷

The principal effect of the REMIC rules instituted in the Tax Reform Act of 1986 was to remove federal tax obstacles to the efficient origination and trading of Mortgage-Backed Securities. Being exempt from federal income tax, a REMIC functions as an investment Conduit without any other business or operation. However, the entity must report all its earnings and payments on a calendar-year basis, so that the tax authority can compare the earnings of the REMIC entity to the taxable income that holders of REMIC securities are obliged to report in their income tax filings. This then avoids double taxation.⁷⁷⁸

The REMIC criteria opened the way for new structures:⁷⁷⁹

1. It allowed issuers to create multiple-class mortgage pass-through securities that were not taxed as entities separate from the issuer.
2. It approved the creation of senior/subordinated mortgage securities for which there were no restrictions on trading subordinate interests.
3. It permitted the creation of CMOs that do not have any issuer's equity interest.
4. It allowed pass-through pools to maintain cash reserve funds for added credit enhancement.
5. It made cash flow efficiency possible.

The REMIC rules gave issuers more flexibility in structuring Mortgage-Backed Security Offerings. However, in order to qualify for this favourable tax treatment, the entity has to comply with a set of stringent requirements. The most important ones include:⁷⁸⁰

1. Assets must consist of qualified mortgages, foreclosure property, cash flow investments, and a qualified reserve fund. Any obligation that is

⁷⁷⁷ Cf. Robinson (2003), Interview 9, p. 554.

⁷⁷⁸ Cf. Hu (1987), p. 13.

⁷⁷⁹ Cf. Fiedler and Devoe (1995), p. 10.

⁷⁸⁰ Cf. Zacamy and Zwaryczuk (1987), p. 18.

principally secured, either directly or indirectly, by an interest in real property can be a qualified mortgage. This includes commercial and residential mortgages, 100% and partial participation certificates, pass-throughs and interests in pass-throughs, stripped coupons and mortgages such as a stream of only mortgage interest or principal, and senior and subordinated participations in mortgage pools. Investors may purchase two types of REMIC interests; regular interests and residual interests.

2. Investors may acquire an interest in a REMIC in exchange for cash, property, or both.
3. Even though a REMIC is generally not subject to taxation, regardless of its legal forms, a REMIC, like a partnership or an S corporation, must calculate its taxable income or net loss at the entity level. A REMIC's income, gain, loss, and deductions are passed through to its investors.
4. If a REMIC enters into a prohibited transaction it incurs a penalty tax. Prohibited transactions are those that produce the following types of income or gain plus certain unallowable dispositions:
 - a. Income from an asset that does not qualify as a qualified mortgage or permitted investment;
 - b. Income that represents a fee or other compensation for services,
 - c. Gain from the disposition of any cash flow investment, except in connection with a qualified liquidation;
 - d. Disposition of a qualified mortgage, except pursuant to the substitution of a qualified replacement mortgage for a qualified mortgage; foreclosure, default, or imminent default of the mortgagee; the bankruptcy or insolvency of the real estate mortgage pool; or complete liquidation of the REMIC pursuant to a qualified liquidation plan.
5. REMICs are obligated to engage in extensive reporting in order to provide each investor with the information necessary to determine tax liability.

At first this tax alleviation was targeted towards the residential properties Securitisation market. This made sense as two thirds of the \$ 442 billion of single-family mortgages originated in 1986 were packaged in pools that were securitised as Mortgage-Backed Securities.⁷⁸¹ At the time, the Commercial Real Estate Securitisation⁷⁸² market was still in its infancy. However, the institution of the REMIC tax structure spawned a new generation of CMBS that had a broader appeal to investors and issuers.⁷⁸³

Looking back it becomes evident that the REMIC tax structure led to an increase in volume, a reduction in costs and the production of greater efficiencies in the fast growing market for securities backed by real estate. It provided issuers with significant new opportunities to raise capital more efficiently and at lower costs.⁷⁸⁴

*“The thing is, here in the States Securitisation has been going gangbusters for a while. When we got the REMIC, we had a lot of government sponsored (public) Securitisation with Fannie, Freddy and Ginnie Mae, already. The REMIC structure came in and we had a very significant growth in the private sector.”*⁷⁸⁵

The FASIT Structure

Following the example of the Tax Reform Act of 1986 and the institution of the REMIC structure, the tax authority in 1996 tried to make the market even more appealing to originators and institutional investors. The Small Business Job Protection Act of 1996 included, among other things, the establishment of the Financial Asset Securitisation Investment Trust (FASIT),⁷⁸⁶ a new means of securitising assets that was similar in intent but went beyond the Real Estate Mortgage Investment Conduit (REMIC) structure. The new regulation allowed qualifying institutional investors to invest into FASITs. This vehicle was to

⁷⁸¹ Cf. Levitin (1987), p. 27.

⁷⁸² Even though the CMBS and the RMBS (in the US often only called MBS) transactions both rely on the REMIC structure, the markets are perceived as totally different and are even analysed as separate asset classes. Cf. Corcoran (2003), Interview 12, p. 554.

⁷⁸³ Cf. Fink (2000), p. 121.

⁷⁸⁴ Cf. Ashenmil (2003), Interview 14, p. 554.

⁷⁸⁵ Cf. Boemio (2003), Interview 17, p. 554.

⁷⁸⁶ The FASIT structure became effective as of 01 September 1997. Mishra (1998b), p. 22.

spread the REMIC tax advantage to vehicles for further asset classes other than mortgages.⁷⁸⁷

The FASIT was another evolutionary step in making the Securitisation market more flexible and tax-efficient for investors. It was targeted to become a vehicle that was a lot more flexible than the REMIC vehicle, as the REMIC model was not optimal in the whole of its structure:

*“There is no one “right” model, as is attested to by the continuing evolution of the market in the US; most recently, for example, the introduction of Financial Asset Securitisation Investment Trusts (FASITs).”*⁷⁸⁸

It provided a mechanism of securitizing both mortgage and non-mortgage assets, and allowed issuers to substitute collateral, withdraw collateral representing over-collateralization and add assets over its life.⁷⁸⁹

The industry expectation was that FASITs would add fuel to the Securitisation industry on two fronts:⁷⁹⁰

1. It would attract a new class of investors such as money managers and hedge funds.
2. It would be able to provide a variety of loans that was not provided for by the REMIC – including construction loans, bridge loans, takeout loans and other short-term loans.

Being a so called “living and breathing vehicle”, the FASIT was anticipated to create an ‘added value’ for the CMBS industry, but it was also open to all other sub-asset classes within Asset-Securitisation. It would give Conduit originators the chance to break into an area where traditional lenders (especially commercial banks) had maintained a competitive edge – the construction loan business. Conduit lenders would be able to originate and securitise construction loans, something that was very hazardous under the REMIC structure.⁷⁹¹

⁷⁸⁷ Cf. Moreo (1997), p. 80.

⁷⁸⁸ Bank of America (1997), p. 6.

⁷⁸⁹ Cf. Gichon (1999), p. 9.

⁷⁹⁰ Cf. Mishra (1998b), p. 22.

⁷⁹¹ Cf. Oldfield (2000), p. 449.

The authorities anticipated that the FASIT structure was likely to boost the market because of its flexible nature – especially in the CMBS and Conduit market. Despite a lot of initial enthusiasm when the new financing vehicle was introduced in late 1997, the FASIT had a much slower start than initially expected. After some regulatory and tax issues were clarified, the FASIT still had the potential to provide a dynamic alternative to the REMIC that only allowed issuers to pool and securitize commercial real estate mortgage assets. And so the market started off very promising in 1998, with a first deal of \$2.2 billion. However, the market never really got off the ground, primarily due to tax reasons⁷⁹² and the limitation of only being able to sell FASIT securities to C-Corporation investors.⁷⁹³

Even though it was also possible to structure stringent non-taxable Mortgage Securitisation transactions before the Tax Reform Act of 1986, it was a lot more challenging and hazardous. The constitution of the REMIC structure facilitated the issuance of bonds with multiple tranches; thereby taking away tax hazards that constrained the evolution of the Real Estate Securitisation market. On the other hand, the FASIT structure never really got off the ground, because it was not structured tax-efficiently enough.

All in all, the REMIC structure allowed the Real Estate Securitisation market to develop itself into new sub-asset classes and it opened up room for new structural innovations.

4.3.3.3 Accounting Environment

*“Whilst the accounting treatment is very rarely, if ever, the key driver behind Securitisation transactions it is in the current environment an important consideration.”*⁷⁹⁴

The Accounting Environment in the US is influenced by the local accounting criteria: the US Generally Agreed Accounting Principles (US GAAP). Everything

⁷⁹² In a FASIT transaction, the party that transfers assets into the FASIT issuing entity may have to pay taxes based on the value of the cash flow, as established by the IRS, rather than on the actual income from the transaction. Cf. Schneider (2003), p. 99.

⁷⁹³ Cf. Nirenberg and Burke (1996), p. 85.

⁷⁹⁴ Cf. Barnes (2003), p. 19.

in the US that in any way relates to accounting of companies is regulated by those guidelines. Securitisation transactions and the vehicles utilised also underlie US GAAP. As Securitisations are structured to separate the legal ownership of the assets from the originator/issuer to a special purpose vehicle (SPV) there is a general concern that if the originator/issuer does not perfectly segregate the assets then there may not only tax or bankruptcy issues arise, but also accounting issues.⁷⁹⁵

The key discussion point in this context is always the off-balance sheet treatment of assets that have been securitised in an Asset-Securitisation transaction and if the originator has to re-consolidate the SPV (or SPE as it is called under in US GAAP) that holds the assets or not.⁷⁹⁶

The events around the Enron failure in 2001 has pushed accounting into the spotlight of media and accountants. Securitisation with its use of special purpose entities (SPEs) and potential for off balance sheet financing has been directly influenced by that. The result has been a number of new guidelines, interpretations, and modifications to existing accounting standards that have sought to clarify or amend the current accounting treatment for Securitisation transactions.

The accounting treatment of Securitisations is centred around two key questions:⁷⁹⁷

1. Should the originator of the securitised assets derecognise the assets from its balance sheet?
2. Where a Special Purpose Entity (SPE) is involved, should the originator consolidate that SPE or does the Entity qualify as a QSPE?

These two questions are based on two separate accounting principles. Consequently it may be the case that an originator may achieve de-recognition of the securitised assets at a company level, but on the other hand the assets are on the balance sheet at the consolidated level.

⁷⁹⁵ Cf. Gangwani (1998), p. 8.

⁷⁹⁶ Cf. Mountain (2003), p. 2.

⁷⁹⁷ Cf. Deloitte & Touche (2003), p. 1.

Under US GAAP there are a number of standards relevant to Securitisation transactions. The key ones are:⁷⁹⁸

1. FAS 140, which sets out the rules on de-recognition of financial assets.

Under FAS 140 de-recognition is based on surrender of control over financial assets. A number of conditions need to be met.

- a. The transferred assets have been isolated from the transferor.
- b. Each transferee has the right to pledge or exchange the assets it received and no condition both constrains the transferee from taking advantage of its right to pledge or exchange and provides more than trivial benefit to the transferor.
- c. The transferor does not maintain effective control over the transferred assets through either
 - i. an agreement that both entitles and obligates the transferor to repurchase or redeem them before their maturity; or
 - ii. the ability to unilaterally cause the holder to return specific assets, other than through a cleanup call.

2. FIN 46 which addresses consolidation of Variable Interest Entities (a newly-coined term which is also called a Qualifying SPEs).

The decision of whether or not to consolidate an entity in the US, laid down in ARB 51 is based on the principle of control. This has been supplemented by FIN 46 issued on the 17 January 2003. FIN 46 is an interpretation of ARB 51 and addresses the consolidation of variable interest entities (VIE). A VIE is an entity that either does not have equity investors with voting rights or has equity investors that do not provide sufficient financial resources for the entity to support its activities.

An enterprise shall consolidate a VIE, and be deemed primary beneficiary, if that enterprise has a variable interest that will absorb a majority of the entity's expected losses and/or receive a majority of the

⁷⁹⁸ Cf. Barnes (2003), p. 19.

entity's expected residual returns, including fees to the decision maker and fees to providers of guarantees.

FIN 46 does provide an exemption to the normal consolidation rules, providing for entities that meet the SFAS 140 definition of a Qualified Special Purpose Entity (Q-SPE) to avoid consolidation by any enterprise.

The standards are very much in a state of flux and have been subject to constant change during the last 3 years.

The accounting treatment of a structure in a Securitisation is very important to most originators, but the rules are given and there is not much the originator can do to change the rules. In general one has to take the accounting environment as a given.

*"It [the Accounting Environment] is what it is and you try to work around it."*⁷⁹⁹

Comparing the accounting to the regulatory (supervision) rules of capital treatment and the distribution of risk and reward, the regulators' views differ from the accountants' views. Whereas the regulators believe that a bank can in fact have a limited risk transfer for limited capital relief, accountants believe that it has to be "all or nothing", in order to get off-balance sheet.⁸⁰⁰

*"And this is tough to have."*⁸⁰¹

This is especially tough, if a bank only for example retains \$1 of the unrated tranche in a \$100 issuance. This represents only 1%. From the regulatory perspective, the bank will only need to put up \$1 in capital for that. Therefore, this Securitisation would be in a grey zone, as are most transactions – it is never all or nothing. This is why regulators try to match the capital according to the risk exposure. Eventually this will lead to a risk transfer out of the banking system, as banks try to place the lower rated tranches with other investors.⁸⁰²

⁷⁹⁹ Ashenmil (2003), Interview 14, p. 554.

⁸⁰⁰ Cf. Cave (2003), Interview 18, p. 554.

⁸⁰¹ Cf. Cave (2003), Interview 18, p. 554.

⁸⁰² Cf. Cave (2003), Interview 18, p. 554.

However, as analysed above, the accountants have a different view: if the company retains risk, gives guarantees or does not give up future rewards, the transaction is fully consolidated.

Especially, for Credit Tenant Lease Securitisation and off-balance sheet leases this FIN 46 has posed great problems.⁸⁰³ There have always been huge accounting and tax issues in the US. This is especially true in sale-leaseback transactions. From the accounting perspective, the problem is that the transaction undergoes an enormous scrutiny in order to get the asset of the seller's books.⁸⁰⁴

The general US GAAP rules on Securitisation have also influenced CMBS structures and the structural setup and credit enhancement measures in those transactions. Nonetheless, the accounting rules are what they are and all the players in the corporate market have to live with those. From that perspective accounting has neither been an upholding obstacle, nor a spur to the CMBS market.

4.3.3.4 Rating Environment

The rating environment has been the key to the success of the overall Asset-Securitisation market. In the early stage of the evolution, the Rating Agencies have banked on their reputation in providing corporate and bond credit ratings and have extended this standing to the Securitisation industry by providing opinions on the credit of Securitisation issuances. First, they rated Residential Mortgage-Backed Securities and then they stretched their expertise to the Commercial Mortgage-Backed Security market.

In the beginning of the CMBS market rating posed a problem. Even though Residential Mortgage-Backed Securities⁸⁰⁵ had been rated for years, to develop

⁸⁰³ Cf. Berman (2003); Homer (2003a); Homer (2003b); Homer (2003c).

⁸⁰⁴ Cf. Robinson (2003), Interview 9, p. 554.

⁸⁰⁵ Cf. Chen, *et al.* (1998), p. 1.

a rating model for CMBS was a lot more difficult and challenging.⁸⁰⁶ There were many issues that had to be solved.⁸⁰⁷

- Commercial property was income producing real estate and hence different from single family-homes.
- There was a greater diversity of properties underlying commercial mortgage loans.
- Commercial real estate mortgage loans were complex and all but homogenous.
- Commercial property leasing incorporating a mass of tenants, which was dissimilar to RMBS.
- There were different financing and underwriting issues involved in commercial mortgage loan underwriting.
- The recorded history of commercial property foreclosures and delinquencies was not as comprehensive as that for single-family mortgages, for which comparatively detailed foreclosure data could be obtained dating back to the 1930's.

Standard and Poor's was the first rating agency to introduce a credit-rating system for the evaluation of Commercial Mortgage-Backed Securities in November 1984.⁸⁰⁸ It was the first rating criteria for CMBS. The rating system that they developed in cooperation with Salomon Brothers better enabled investors to compare CBMS with other rated investments. It was an evolutionary step for the Securitisation of commercial mortgage loans. It set a credit rating standard for bonds backed by mortgage loans on commercial properties. Also, more uniform commercial mortgage loan origination, underwriting and property-appraisal standards resulted from the development of S&P's rating system.⁸⁰⁹

⁸⁰⁶ The difference in rating criteria between RMBS and CMBS made both become separate asset classes, from the start of the market.

⁸⁰⁷ Cf. Ross and Kane (1985), p. 8.

⁸⁰⁸ Moody's Investor Service and Duff & Phelps (today Fitch IBCA) introduced their credit rating system for debt securities collateralized by commercial real estate in 1986. Cf. Adler (1987), p. 23.

⁸⁰⁹ Cf. Manolis and Meistrich (1986), p. 19.

Under the rating system, S&P developed two rating models for the evaluation of Commercial Mortgage-Backed Securities offerings that are still used today and that other rating agencies have adapted in one way or another:⁸¹⁰

- The Actuarial Model⁸¹¹

The actuarial model is tailored generally for a large number of properties (Conduit-CMBS) and for offerings by major institutional issuers (Portfolio Transactions), such as life insurance companies and commercial banks. It sets underwriter rating standards for the bond issuer and performance standards for the issuer's mortgage pool that collateralizes a bond offering. The actuarial model takes a statistical approach to rating CMBS. The first criteria report stated that mortgage portfolios collateralizing an offering rated under the actuarial model should consist of at least 300 mortgages and no single mortgage or single mortgagor's ownership should exceed 5 % of the bond issue.⁸¹²

- The Property- Specific model⁸¹³

The property-specific model can be applied to a single property and to smaller mortgage pools. The key requirements of this model are that the underlying properties must be of high quality and be able to withstand adverse economic conditions. The property-specific model, as opposed to the actuarial model, sets standards based primarily on the projected cash flow of properties underlying the mortgage collateral. The model analyses the lease term, tenant mix and quality, property management, energy efficiency, construction quality, functional obsolescence, and site location of properties in Securitisation transactions.

Today, the rating industry is characterised by a rating agency oligopoly; there are three rating agencies left that rate structured finance transactions: Standard

⁸¹⁰ Cf. Standard & Poor's (2004), p. 11.

⁸¹¹ Cf. Manolis and Meistrich (1986), p. 19; Ross and Kane (1985), p. 9.

⁸¹² This model was also the basis for the granular portfolio approach in Securitisation transactions taken by bank supervisors and the Basel II committee on bank supervision.

⁸¹³ Cf. Standard & Poor's (2004), p. 11.

& Poor's, Moody's Investor Service and Fitch Ratings.⁸¹⁴ All agencies have developed their own rating criteria and have their own rating scales.⁸¹⁵ For CMBS, the agencies have created general CMBS criteria as well as specialized CMBS criteria (by property type and by transaction scheme).

General US CMBS criteria:

- CMBS Property Evaluation Criteria (Standard & Poor's)⁸¹⁶
- Structural Innovations in CMBS (Fitch Ratings)⁸¹⁷

US CMBS Criteria for all different commercial property types:

- Office Property⁸¹⁸
- Manufactured Home Communities⁸¹⁹
- Parking Facilities⁸²⁰
- Self-Storage Facilities⁸²¹
- Assisted Living Facilities⁸²²
- Ground Leasehold Interests⁸²³
- Hotel Properties⁸²⁴
- Industrial Properties⁸²⁵
- Movie Theatres⁸²⁶

⁸¹⁴ Cf. Standard & Poor's (2004), p. 1.

⁸¹⁵ Cf. Bär (1997), p. 203; Bär (1998), p. 32.

⁸¹⁶ Cf. Standard & Poor's (2004), p. 1.

⁸¹⁷ Cf. Fitch Research (1996), p. 1.

⁸¹⁸ Cf. Chen and Church (1999), p. 1.

⁸¹⁹ Cf. Rubin (2003a), p. 1.

⁸²⁰ Cf. Rubin (2003b), p. 1.

⁸²¹ Cf. Rubin (2003c), p. 1.

⁸²² Cf. Rubin (1998), p. 1; Rubin (1999), p. 1.

⁸²³ Cf. Citro (2001), p. 1.

⁸²⁴ Cf. Park and Purij (2001), p. 1.

⁸²⁵ Cf. Rubin (2001), p. 1.

⁸²⁶ Cf. Rubin, *et al.* (2001), p. 1.

- Multi-Family Properties⁸²⁷

US CMBS Criteria for all different transaction schemes:

- Single Property/Single Borrower CMBS⁸²⁸
- Large Loan CMBS⁸²⁹
- Conduit-CMBS⁸³⁰
 - Small Commercial Mortgage Loans⁸³¹
 - Floating Rate Transactions⁸³²
- Credit Tenant Lease Securitisations⁸³³

Special Reports on Framework issues:

- Legal Criteria for Structured Finance Transactions⁸³⁴
- US CMBS Legal Criteria⁸³⁵
- Legal Issues for German Asset-Backed Securitisation⁸³⁶
- Approach to Terrorism Insurance for US Commercial Real Estate⁸³⁷
- CMBS Surveillance Criteria⁸³⁸
- CMBS Evolution and the influence of property cycles⁸³⁹
- Investors Benefit from the Legal/Structural Review of U.S. CMBS Transactions⁸⁴⁰

⁸²⁷ Cf. Rubin and Rosen (2003), p. 1.

⁸²⁸ Cf. Nayar (2000), p. 1.

⁸²⁹ Cf. Chen, *et al.* (2001), p. 1.

⁸³⁰ Cf. Rubin and Levidy (2000), p. 1.

⁸³¹ Cf. Jacobo (1999), p. 1.

⁸³² Cf. Chen and Chacon (2000), p. 1.

⁸³³ Cf. Nayar (1998), p. 1.

⁸³⁴ Cf. Dawson (2002), p. 1.

⁸³⁵ Cf. Scott (2003), p. 1.

⁸³⁶ Cf. Bell and Staudohar (2003), p. 1.

⁸³⁷ Cf. Rubock and Philipp (2002), p. 1.

⁸³⁸ Cf. Stafford and MacNeill (2002), p. 1.

Fuelled by the success in the Mortgage-Backed Securities markets (RMBS and CMBS), the rating agencies also played a very important role in developing other asset classes in Securitisation. Today, rating agencies have created rating criteria on nearly every asset and sub-asset class in Asset-Securitisations.

- Asset-Backed Securities (ABS):⁸⁴¹
 Receivables Backed Securitisations,⁸⁴² Pooled Aircraft Securitisations,⁸⁴³
 Tobacco Settlement Revenues,⁸⁴⁴ Mutual Fund Fees,⁸⁴⁵ Franchise Loan
 ABS,⁸⁴⁶ Music Royalty and Intellectual Property ABS,⁸⁴⁷ Airline Ticket
 Receivables,⁸⁴⁸ Telephone Settlement Payments,⁸⁴⁹ Future Film
 Securitisations⁸⁵⁰ and Agricultural & Equipment ABS⁸⁵¹ (inter alia).
- Asset-Backed Commercial Paper (ABCP)⁸⁵²
- Whole Business Securitisation (WBS)⁸⁵³
- Synthetic Securitisation⁸⁵⁴
- Collateralized Debt Obligations (CDOs)⁸⁵⁵

⁸³⁹ Cf. Gordon (2000), p. 1.

⁸⁴⁰ Cf. Biro (2004), p. 1.

⁸⁴¹ Cf. Mazataud and Yomtov (2000), p. 1; Xie (2003), p. 1.

⁸⁴² Cf. Dornhofer and Pilcer (2002), p. 1.

⁸⁴³ Cf. Tuminello and Chen (1999), p. 1.

⁸⁴⁴ Cf. Weill and Ekmekji (2001), p. 1; Weill (2002), p. 1.

⁸⁴⁵ Cf. Dil (1998), p. 1.

⁸⁴⁶ Cf. Chisholm and O'Connor (2000), p. 1.

⁸⁴⁷ Cf. Eisbruck (1999), p. 1.

⁸⁴⁸ Cf. Knapp (1999), p. 1.

⁸⁴⁹ Cf. Weaver (1999), p. 1.

⁸⁵⁰ Cf. Eisbruck (2000), p. 1.

⁸⁵¹ Cf. Fabrikant (1998), p. 1.

⁸⁵² Cf. Bate, *et al.* (2003), p. 1; Maurice and Sodhi (2001), p. 1; Seife (2001), p. 1; Standard & Poor's (2000a), p. 1.

⁸⁵³ Cf. Keane, *et al.* (2004), p. 1; Pfister (2000), p. 1.

⁸⁵⁴ Cf. Standard & Poor's (2000b), p. 1; Yoshizawa and Witt (2003), p. 1.

⁸⁵⁵ Cf. Falcone and Gluck (1998), p. 1; Gluck and Remeza (2000), p. 1; Levidy and Chacon (2004), p. 1.

Over the course of the Asset-Securitisation market's evolution, rating agencies have gained an enormous power over issuers and asset originators. It is primarily the rating agencies and the investors that arrangers and sponsors have to report to – “they are the masters of the transactions”.⁸⁵⁶

“All those other items are generally fixed: regulatory, tax, accounting and legal – the things that change from deal to deal are the things that investors think and that rating agencies think.”⁸⁵⁷

The rating agencies determine the tranching for transactions, however loan underwriters can generally estimate how a loan will be tranced as it gets originated. So, Rating Firms have the power to make transactions work or not – they determine the tranching and have an influence on the composition of the asset-pool.⁸⁵⁸

“We are always there and getting in the way of an awful lot of transactions. I submit we play a constructive role. Others think that although we are constructive, we are too intrusive.”⁸⁵⁹

In Structured Finance, the major role of rating agencies is to estimate and rate credit risk in transactions and to assist investors in making investment decisions. Through research, analysis, and information the (credit) rating agencies protect investors against unknowingly taking credit risk. Hence, investment grade rating states that a particular instrument will pay interest and principal according to the terms of the indenture.⁸⁶⁰

Without ratings, the complex universe of Asset-Securitisation securities would not be able to be sold. Rating sets a defined credit standard that investors understand and accept; it states that credit enhancement structures used in transactions is appropriate to the assigned rating. For issuers to seek ratings is favourable, as it makes their securities more marketable to investors at lower

⁸⁵⁶ Cf. Ashenmil (2003), Interview 14, p. 554.

⁸⁵⁷ Ashenmil (2003), Interview 14, p. 554.

⁸⁵⁸ Cf. Choe (2003), Interview 13, p. 554.

⁸⁵⁹ Baron (2000), p. 81.

⁸⁶⁰ Cf. Baron (2000), p. 81.

interest costs. On the other hand, as investors gain confidence in the edit analyses of rating agencies, they require a lower yield on an investment.⁸⁶¹

From a principal-agent standpoint, rating agencies have taken over the role of a signalling mechanisms for solving hidden characteristics problems in Asset-Securitisation transactions. For issuers this has led to substantial savings in interest expenses and for investors this has led to a greater confidence in the quality of the complex securities that they purchase.

Overall, the evolution of rating criteria was the catalyst that stimulated the growth and development of an institutionalised, national market in CMBS.⁸⁶² It led to more uniform mortgage-loan origination, underwriting and property-appraisal standards and thus made the real estate lending and the CMBS market more standardised and resistant against loan underwriting crises as observed in the 1980's.

The existence of rating agencies, which built up expertise in analysing Securitisation transactions, fuelled the growth and development of the CMBS market. The CMBS market became not only a very important innovation for real estate financing in the US, but also the role model for all other Asset-Securitisation markets that followed it.

4.3.3.5 Investor Environment

As mentioned above, over time the Investor and Rating Environment have turned out to be the most important environments in the evolution of the CMBS market. They have been crucial for the ongoing success of CMBS. In that context investor involvement in the market is one of the most important drivers.⁸⁶³

It does take a certain environment in the capital markets to accept Asset-Securitisation. The investor environment has been part of the reason, why the CMBS market in the US has taken so long to truly get off the ground. After the

⁸⁶¹ Cf. Baron (2000), p. 83.

⁸⁶² The rating environment was not a driver for the evolution of CTL because in a CTL transaction the credit tenant is already rated. Hence, there is no other separate rating needed. Cf. Jacobs (2003), Interview 19, p. 554.

⁸⁶³ Cf. Ashenmil (2003), Interview 14, p. 554.

real estate crisis in the United States in the 1980's investors became so risk averse towards real estate, that Commercial Mortgage-Backed Securities took a while to become popular among investors. One key problem was to figure out the right way to minimize credit risk. Eventually the pooling effect of CMBS helped to minimize credit risk and the more issuances were done (especially in the early 1990's by the RTC), the more investors understood the portfolio benefits of CMBS.⁸⁶⁴

Investor Involvement in Commercial Mortgage-Backed Securities did not start until the Resolution Trust Corporation. 1993/1994 were the watershed years for the CMBS market in the US. It was then, after the wrap-up of the RTC that institutional investors, banks and mutual funds started to accept CMBS as a legitimate fixed-income investment. Looking at the evolution cycle of CMBS, it becomes evident that the start of the investor acceptance fell together with the upswing in issuance volumes.⁸⁶⁵

Throughout the market development cycle, Investors have influenced the outcome of the structures. Over time, there have been a few structures that did not hit "investor appetite" or that went out of favour with investors. So, the transaction types and the structures that the CMBS market in the US is left with today have proven to be the most investor-suitable structures, even though they might not be the most sponsor or originator friendly structures.⁸⁶⁶

For most investors in the US, the CMBS structure works very well. Hence, this does not leave much room for other innovative structures such as pure Securitisations of buildings or future real estate cash flows. Above that, CMBS works so well for investors because of the diversification effects in large underlying mortgage loan portfolios.⁸⁶⁷

Investors in CMBS – Bank vs. Non-Bank Investors

It is possible to segment Investors by fixed vs. floating and by high rated vs. low rated tranche preference. Segmenting the investors in CMBS by floating vs.

⁸⁶⁴ Cf. Stark (2003), Interview 10, p. 554.

⁸⁶⁵ Cf. Cocheo (1995), p. 48.

⁸⁶⁶ Cf. Choe (2003), Interview 13, p. 554.

fixed rate notes, the fixed rate bonds are usually placed within the US, whereas on the floating rate side European investors have invested in certain classes of CMBS transactions.⁸⁶⁸

Banks are one of the primary investors in the highly rated tranches of Asset-Securitisation; so are insurance companies and other institutional investors in traditional debt products. What Basel II implies for the investor environment is that the investor universe in Asset-Securitisations will be segmented. The market in the future will develop into the direction that the higher rated tranches will be taken up by banks because they have to underlie the highly rated tranches only with little capital. And the lower rated tranches are placed outside the banking system with investors that are not subject to such strong capital requirements and that maybe perceive the risk differently. Hence, the investors in the higher rated tranches will hence come out of the banking system or the insurance system and the investors in the lower rated tranches will come out of the Corporate Sector.⁸⁶⁹

Due to Basel II and the implementation of a more risk sensitive capital framework for Securitisation, most of the US banks are pressured to purchase the high quality senior 'AAA' and 'AA' rated tranches. The reason besides risk-based capital is that the credit risk and the duration are generally manageable – more duration is more stable. Under the current bank regulatory rules, for every \$100 exposure banks would have to hold \$1.60 of risk-based capital for 'AAA' and 'AA' Securitisation tranches.⁸⁷⁰

Looking at the credit curve, it is observable how investors in CMBS are becoming segmented. The 'AAA' and high investment grade classes are allocated to regulated investors like insurance companies, banks, thrifts, Fannie Mae, Freddy Mac, and high quality accounts. Then going down the credit curve and out the maturity curve, it becomes the non-regulated investors that buy into

⁸⁶⁷ Cf. Choe (2003), Interview 13, p. 554.

⁸⁶⁸ Cf. Choe (2003), Interview 13, p. 554.

⁸⁶⁹ Cf. Cave (2003), Interview 18, p. 554.

⁸⁷⁰ Under the previous rules for every \$100 in 'AAA' and 'AA' tranches, the banks needed to hold \$8. The same amount also counted for a single B tranche as well. Therefore the previous rules were not very risk sensitive. Cf. Cave (2003), Interview 18, p. 554.

the transactions. Those companies incorporate: GMAC, GE Capital, B-piece funds, specialty risk funds and special servicers – who are buying and are getting the required 27% return.⁸⁷¹

“But that is good, because that means that my tax dollars do not go to support that CMBS, if it blows up. It is that GE Capital or GMAC that will lose. If it comes down to that thrift across the street that bought the ‘AAA’ piece, they are probably fine.”⁸⁷²

In the future the question will be: Who is buying the lower rated tranches? Insurance companies and all of the above mentioned will buy down to the ‘BBB’ level. CDO buyers that repackage the bonds into an Arbitrage-CMBS will look at ‘BBB’ and ‘BB’ bonds (depending on market dynamics). Below investment grade bonds are often bought by certain opportunity investors who have the capacity to accurately assess and underwrite the underlying portfolios in great detail. Also, they typically have significant real estate work out experience, which results out of their position, being in the higher risk and first loss position.⁸⁷³

If banks compete with non-regulated institutions on the same bonds, then the Non-regulated institutions – like GE Capital and so on – might be able to price the tranches differently, depending on their subjective perception of risk. This might even enlarge/magnify the segmentation effect in the industry. Above that, the banking industry is also competing with the insurance company industry, which is also heavily regulated. So there is also competition between those two sets off regulatory capital requirements.⁸⁷⁴

Looking at the conclusion of this, it becomes evident that the evolution of Basel II and the new risk-sensitivity of banks segment the market. In essence under Basel II going forward, as banks do not invest into junior tranches anymore, the challenge will be to find junior investors. This will be the key to the success of a Securitisation transaction in the future.

⁸⁷¹ Cf. Jacobs (2003), Interview 19, p. 554.

⁸⁷² Jacobs (2003), Interview 19, p. 554.

⁸⁷³ Cf. Choe (2003), Interview 13, p. 554.

Investors in CTL

Credit Tenant Lease Securitisation from an investor's standpoint is a different asset class than CMBS. It is targeted at a specific investor group. The obligation of the borrower to pay the debt service comes from the rent with a credit tenant that has signed a triple-net, bondable lease. This is very attractive to investors. As long as the tenant is viable, the rent gets paid and the investor does not have to care about the building because that is the responsibility of the tenant. The only risk that the investor is taking is the credit risk of the tenant. And since the tenant has a credit rating the investor can estimate the credit risk that he is taking. Additionally, for the event of bankruptcy the investor is hedged against a total loss, because he has a first lien on the properties underlying the transaction. In a corporate sale-leaseback CTL Securitisation, the key in the initial underwriting is to pick those assets as collateral for the transaction that are vital to the corporation. This way the investor can be sure that he can sell the property if he has to foreclose on it.⁸⁷⁵

*"It's almost like owning a corporate bond since the tenant would be 100% responsible for the building."*⁸⁷⁶

Even in troubled transactions the downside risk of Credit Tenant Lease Bonds is hedged. This is a benefit of CTL compared to Corporate Bonds. When K-Mart went into bankruptcy the corporate bonds traded at "20 cents on the dollar", whereas the CTL bonds never went below the 'go dark value'⁸⁷⁷ of the real estate, which lies between 40% - 60% of the market value. So, the CTL bonds traded at "45 cents on the dollar" and thereby provided a downside risk hedge against total loss.⁸⁷⁸

⁸⁷⁴ Cf. Cave (2003), Interview 18, p. 554.

⁸⁷⁵ Cf. Sheridan (2000), p. 90.

⁸⁷⁶ Sheridan (2000), p. 90.

⁸⁷⁷ The go dark value stands for the value that the property has, when the tenant moves out tomorrow and all the lights go dark in the building. In essence it stands for the price that this real estate will always be sold at, even if one has to put it on the market today and sell it tomorrow.

⁸⁷⁸ Cf. Homer (2002a).

As opposed to Conduit, Large Loan or Single Property CMBS, Credit Tenant Lease Securitisation primarily attracts insurance companies as investors. This goes back to the insurance companies' regulation guidelines, which all insurance companies have to live and invest by. The regulatory body is the National Association of Insurance Commissioners (NAIC), which it is not a public body but rather an industry rule. However, any insurance company that is domiciled in the US must follow its rules.⁸⁷⁹

Under the NAIC guidelines, investors in CTL bonds can make a regulatory arbitrage compared to investing into real estate loans. Insurance companies do not rate the asset classes as 'AAA' to 'BBB' – they rate them NAIC-1 to NAIC-5. So, from a risk-weighting standpoint, there are only 5 risk weightings. In this respect, a credit tenant lease is an investment grade credit and therefore qualifies for a lower risk weighting. And because the risk weightings get exponentially greater, the lower the investment quality is, most insurance companies do not engage in any credit tenant lending under NAIC-2, which is a 'BBB' or better (i.e. investment grade rating).⁸⁸⁰

In an asset class context, what the NAIC also does is it puts all asset classes on a Schedule – ranging from A to D. A is equity investments (common stocks, etc.), B is Real Estate Loans, C is Other Investments and D is Corporate Bonds. So, depending upon where the insurance invests its assets, it has a particular risk-based capital requirement: with equities it is very high, with mortgage loans it is a little bit less, and with bonds it is relatively low – especially if they are investment grade bonds. So, in the case of a Credit Tenant Lease Securitisation, the CTL securities would be backed by cash flows from a credit tenant lease collateralised by a mortgage on the building.⁸⁸¹ Therefore, the security implicitly has a corporate bond rating and will, hence,

⁸⁷⁹ Cf. Jacobs (2003), Interview 19, p. 554.

⁸⁸⁰ Cf. Jacobs (2003), Interview 19, p. 554.

⁸⁸¹ The largest section in the NAIC handbook is on Credit Tenant Lending. CTL Securitisation falls under this category. There are more information and guidelines in the NAIC book on Credit Tenant Lending than for any other asset class. Cf. Jacobs (2003), Interview 19, p. 554.

qualify for a schedule D investment (corporate bond) with a lower risk reserve than for a real estate loan.⁸⁸²

For insurance companies, Credit Tenant Lease securities represent a special case in which a risk-reserve arbitrage can be made between Schedule A (which incorporates real estate loans) and Schedule D (which incorporates corporate bonds and CTL securities).⁸⁸³ This arbitrage goes in sync with an additional yield pick-up between a plain corporate bond and a CTL security of the same company and the same credit rating.⁸⁸⁴ Additionally the security represents a downside risk hedge to the investor. Whereas the investor – in the case of the corporate bankruptcy – would not be paid back on the corporate bond, the CTL paper will always be as much worth as the 'go dark value'⁸⁸⁵ of the real estate, because it is collateralized by a mortgage on the building. This makes Credit Tenant Lease Securitisation a very viable niche-market.

Example Case⁸⁸⁶

Rite-Aid is an American pharmacy chain. The company used to have an investment grade credit rating.⁸⁸⁷ In 2000, Rite Aid⁸⁸⁸ – as many other retail chains – slid into credit problems and was close to bankruptcy.⁸⁸⁹

Before the credit problems occurred, Legg Mason Wood Walker over the years executed \$850 million worth of CTL Securitisation for Rite-Aid stores. Besides

⁸⁸² Cf. Jacobs (2003), Interview 19, p. 554.

⁸⁸³ In 1995, the NAIC concluded that a CMBS, a CTL or unrated REIT debt rated by a National Recognized Statistical Rating Organization will be treated as a security on Schedule D of an annual statement than Schedule B, which identifies mortgage loans. Cf. Connolly (1995), p. 1.

⁸⁸⁴ For measuring the interest rate on the CTL paper, the issuer takes the corporate bond yield at and adds a premium between 25 bp and 100 bp, for illiquidity and missing covenants on the credit tenant's corporate debt. Cf. Jacobs (2003), Interview 19, p. 554.

⁸⁸⁵ In calculating the 'go dark value' of the real estate, one subtracts downtime, leasing commission, tenant improvements and everything that needs to get done to get the property leased again from the market value. This results in very low values that come out at 40-60 cents on the dollar (i.e. 40%-60% of the original investment). Effectively this value then represents the stop-loss for the investors' investments in the CTL bonds. Cf. Jacobs (2003), Interview 19, p. 554.

⁸⁸⁶ Cf. Jacobs (2003), Interview 19, p. 554.

⁸⁸⁷ Cf. Anonymous (1999m), p. 1.

⁸⁸⁸ Rite-Aid was not the only deal that got into trouble. For further information on non-performing CTL deals confer Anonymous (1999a), p. 1.

⁸⁸⁹ Cf. Frantz (2000), p. 76.

that the company also traded in Rite-Aid corporate bonds. So, effectively there were two pools of investors – investors who bought Rite-Aid corporate bonds and investors that bought Legg Mason's Credit Tenant Lease securities.

"When Rite-Aid committed financial fraud, everything went down – the corporate bonds traded at 20 cents on the dollar, if you could find a buyer. And when there is crisis, there is no liquidity. Our paper never went less than 45 cents on the dollar."⁸⁹⁰

The reason why the CTL securities never went below 45% of the bonds face value was because this is what the real estate was worth on the market. So there the investors were hedged against total loss. Additionally, for the time that the transaction performed, the CTL buyers got a premium on top of the corporate bond yield that the corporate bond buyers got. The CTL investors got 6%, whereas the corporate bond buyer only got 5%.

Insurance company are specifically interested in buying those bonds, because this helps their Asset-Liability management.⁸⁹¹ For matching their assets to their liabilities these bonds are a good instrument, because they are writing a 20-year annuity. And in that case the insurance has to sell the bond before maturity, the bond underwriters can make quotes and create a secondary market. In contrast to all other kinds of CMBS, CTL is a very small niche business where deals can sometimes be as small as \$20 million. Therefore it is only attractive to a certain kind of investor group.⁸⁹²

All in all, whatever structure is being utilized depends on investors. Investors have to understand the structures and have to be comfortable with them. Different transaction schemes make sense for different kinds of investors. And this is the reason why the industry – influenced by rating agencies and investor preferences – has come out to four different Real Estate Securitisation

⁸⁹⁰ Jacobs (2003), Interview 19, p. 554.

⁸⁹¹ Due to Asset-Liability Management issues, Insurance companies usually want 15-year fixed-rate paper, they have very small appetite for floating rate paper. Cf. Jacobs (2003), Interview 19, p. 554.

⁸⁹² Cf. Jacobs (2003), Interview 19, p. 554.

structures (Single Property/Single Borrower CMBS, Large Loan CMBS, Conduit-CMBS and CTL).

4.3.3.6 Real Estate/Local/Cultural Environment

When all the financial institution in the US went deep into real estate, took a lot of risky loans on and made a lot of bad decisions in the 1980's, the real estate cycle went into a downturn – fuelled by heavy overbuilding. This had a spurring effect on the occurrence of CMBS. It was a spark for the evolution of the market.⁸⁹³

The real estate market changes over time – there are physical and financial upturns and downturns. The movements really depend on what people think and what their expectations are as well as the state of the macro-economic situation. When the real estate market changes this can fuel or restrict the development of the Real Estate Securitisation market.⁸⁹⁴

Above that the current real estate market as well as individual market conditions across the country have an impact on the ongoing development of the market: structures, proceeds and pricing.⁸⁹⁵ Not only the cycle can have an effect on the inception of CMBS, but also the influence on the value of CMBS can be substantial. The timing and the length of the cycle makes difference especially for default sensitive classes such as IOs and B-rated classes.⁸⁹⁶

The credit crunch of 1989-1992 was the basis for the development of CMBS structures in the early 1990's.⁸⁹⁷ The economic situation, banking crisis and fund available in the private real estate financing market, coincided with the main evolution steps in the Securitisation market as can be observed by the following compilation.

1980: Savings & Loans deregulation resulting in uncontrolled real estate lending activity. – The MBS market is growing the CMBS market does not exist.

⁸⁹³ Cf. Robinson (2003), Interview 9, p. 554.

⁸⁹⁴ Cf. Ashenmil (2003), Interview 14, p. 554.

⁸⁹⁵ Cf. Choe (2003), Interview 13, p. 554.

⁸⁹⁶ Cf. Jacob and Hong (2001), p. 217.

⁸⁹⁷ Cf. Fergus and Goodman Jr. (1994), p. 5.

1984: Savings & Loan's Crisis resulting out of the deregulation and leading to a huge Thrift failure and a tough real estate lending environment. – The first CMBS transaction gets structured.

Mid-1980's: Big credit crunch leading to a huge demand in real estate financing and rising interest rates. – There is increased activity in the CMBS market and new structures evolve.

1986: Tax Reform Act and creation of REMIC vehicle. – Strong growth in the overall MBS market.

1989: FIRREA Act and Institution of the RTC. – increasing growth in CMBS issuance volume.

1989-1994: RTC sells off all non-performing assets out of the banking crisis and satisfies saver's claims. – Strong growth in the CMBS market and broad investor acceptance.

Early 1990's: Economic recession, downturn in the real estate market and credit crunch. – Evolution of Large Loan and Conduit-CMBS replacing much of the traditional private lending market.

The local and cultural environment did not play a huge role after all.

4.3.4 Core Determinants

4.3.4.1 Borrowers

The issuers, originators and sponsors of commercial mortgage-backed securities are diverse. Although in the beginning of the market (early 1980's), the leading sponsors were large owners/developers and later the RTC (early 1990's), as the market became more diverse, the main sponsors shifted towards insurance companies, REITs, commercial banks, investment banks, and loan aggregation groups (Conduits).⁸⁹⁸

The characteristics of securitized transactions vary enormously by underlying loan size, by property type, by the number of properties per transaction, and by

⁸⁹⁸ Cf. Fiedler and Devoe (1995), p. 12.

the degree of tranching. Focusing only on the borrowers and the assets, it is possible to distinguish three general categories:⁸⁹⁹

1. The single asset, single borrower transaction.
2. The multiple asset, single borrower transaction.
3. The multiple asset, multiple borrower transaction (Large Loans and Conduit-CMBS).

In 1993, the market was dominated by 27 single-asset transactions in which underlying loan size ranged between \$100 and \$200 million.⁹⁰⁰ In 2003, the market was dominated by multi-borrower/multi-asset Conduit and Conduit/Fusion transactions that made up \$54.3 billion, i.e 70% of the whole CMBS market.⁹⁰¹

In single asset/single borrower transactions, as in deals with multiple assets and a single borrower, the creditworthiness (or reputation) of the borrower is the primary underwriting criterion – and not necessarily the characteristics of the underlying mortgages.

With multiple asset/multiple borrower (or "stand alone") deals the marketability depends primarily on the quality of the underlying pool of mortgage collateral. Those are "true securitized transactions" because, like the original residential mortgage pools. A Securitisation transaction gets its benefit out of the pooling effect. So, the only way that a transaction can stand-alone and be independent from the sponsor's/originator's credit, is if it has enough borrowers to diversify the credit risk. In those transactions the characteristics of the underlying mortgages and the property analysis is what counts.⁹⁰²

The evaluation of the credit risk for "stand alone" transactions relies on statistical calculations of the default rate for commercial mortgage loans. Rating analysts make the assumption that in large pools of mortgage loans with adequate diversity of borrowers, property types, and geographic regions, it is

⁸⁹⁹ Cf. Fiedler and Devoe (1995), p. 12.

⁹⁰⁰ Cf. Fiedler and Devoe (1995), p. 12.

⁹⁰¹ Cf. Corcoran and Iwai (2004b), p. 6.

⁹⁰² Cf. Fiedler and Devoe (1995), p. 12.

possible to calculate the likelihood of default. This is the underlying assumption of the Modern Portfolio Theory.⁹⁰³

Looking at the different types of borrowers, they can be segmented by type of the borrower and size of the asset.

Small vs. Big Borrowers

There are big corporations that are selling off their real estate portfolios. They want to lay off the ownership of the real estate portfolio and they are using a debt security to do that. The typical case in the US, however, is the small developer that wants to have a long-term mortgage that is most efficiently priced in the Securitisation market.⁹⁰⁴

Fixed or Floating Rate Borrowers

One can distinguish borrowers also by their maturity priority for their loans. Long-term borrowers are rather large real estate corporations, whereas short term borrowers are often times opportunity funds that are seeking their exit after 5-7 years.⁹⁰⁵

In the United States there is a big amount of credit-worthy real estate business people who are wealthy and have a net worth of \$20-30 million dollars or more. Their businesses, however, do not have corporate bond ratings. So, the use of their commercial property and the existence of the CMBS market open up a way in which those people can upgrade the creditworthiness of their borrowing instruments. They can use real estate as a collateral in a CMBS transaction, which allows those borrowers to tap the capital markets and to attain a lower cost of funding. By contrast, if those borrowers issued bonds in the corporate bond market, they would be considered junk bond borrowers. The other challenge that this intermediate class of borrowers, without established credit ratings, is facing is that there is not a lot of financing alternatives around for them. By contrast, the group of borrowers in the large loan/ property markets in

⁹⁰³ Markowitz – Portfolio Theory.

⁹⁰⁴ Cf. Boeckmann (2003), Interview 15, p. 554.

⁹⁰⁵ Cf. Choe (2003), Interview 13, p. 554.

the US has a wider choice of financing techniques that they can use. They are not solely restricted to real estate finance.⁹⁰⁶

There are many borrowers, in the US, that fall into that small and middle borrower category. Those are wealthy people with good quality real estate. So, for this group, real estate borrowing (with the implied credit upgrade) is a very efficient vehicle. And, it is primarily commercial real estate developers or operators/investors who are looking for a securitized product, because it is simply the most price-efficient product around.⁹⁰⁷

In the following typical borrowers under the different CMBS schemes will be described.

Single Property/Single Borrower CMBS

In the past there have been a few companies – especially in the beginning of the market – that have done direct issuance transactions. Those were primarily large real estate companies and large real estate developer, like the innovator Olympia & York in the 1980's.⁹⁰⁸

Large Loan CMBS

The borrowers in typical large loan deals are developers, commercial real estate operators and investors that aren't developers. They typically are focused on large loan transactions, which are at least \$20 million – most players do not do anything below \$60 million.⁹⁰⁹

Conduit-CMBS

For typical Conduit borrowers real estate is the core business, i.e. smaller real estate owners/investors and developers. The real estate industry in the US is a very diverse and very competitive industry. There are a lot of different kinds of developers, real estate owners and operators. The economy and the market are so big that there are thousands of real estate industry participants. This results

⁹⁰⁶ Cf. Corcoran (2003), Interview 12, p. 554.

⁹⁰⁷ Cf. Boeckmann (2003), Interview 15, p. 554.

⁹⁰⁸ Cf. Choe (2003), Interview 13, p. 554.

⁹⁰⁹ Cf. Boeckmann (2003), Interview 15, p. 554.

in many small to intermediate players, which are the primary beneficiaries of Conduit type deals.⁹¹⁰

Credit Tenant Lease Securitisation

There are 4 types of borrowers involved in CTL Securitisation as mentioned above:

- Retail Corporations
- Developers
- Other Corporates
- Third-Party Investors

Unlike typical CMBS transactions, the owner of the property, who is the borrower under a Credit Tenant Lease Securitisation, is also the originator of the asset that gets securitised. Essentially, the asset is the credit tenant lease that the borrower sells to the capital market.

The main property type for typical sale-leaseback transaction in the 1990's has been retail:

"Retail has long used net-lease financing which, generally, has tended to be more of a credit-based underwriting."⁹¹¹

Many retail companies have traditionally used Credit Tenant Lease Securitisation to finance their businesses. This included pharmacies like Rite-Aid, CVS or Walgreen's, or other retailers like The Home Depot or K-Mart.⁹¹²

The main reason for the success of CTL Securitisation in the late 1990's was that major retailers continued to expand, and that the owners of those leased properties – if not the retail companies themselves – required financing.⁹¹³

⁹¹⁰ Cf. Corcoran (2003), Interview 12, p. 554.

⁹¹¹ Johnson (2000), p. 36.

⁹¹² Cf. Jacobs (2003), Interview 19, p. 554.

⁹¹³ Cf. Johnson (2000), p. 36.

The proposition for investors on the other hand was that retailers like Walgreen's and CVS as well as Supermarkets were in a recession-resistant industry, with demographics moving in their favour.⁹¹⁴

Also, developers increasingly are also becoming borrowers under CTL transactions. This is due to the fact that credit-tenant leases have fixed rents and long terms, unlike multi-tenant real estate properties where rolling leases can be renegotiated to keep up with market conditions. And since a lot of developers nowadays sign fixed-rate leases with credit tenants 9 to 15 months before a project is complete, their ultimate profit is dependent on interest rates and the cost of financing. Hence, when rates or spreads rise during the construction period and the developer has not arranged a fixed-rate exit strategy, the developer faces a loss in equity value. This is why they have started to look at CTL to get a take-out loan set up before the property is even built.⁹¹⁵

Since a few Retail-CTL transactions collapsed due to Chapter 11 bankruptcy (following financial fraud), the CTL industry has shifted towards corporate sector Securitisations. This is also where most business potential lies for CTL. Sale-Leaseback transactions are the basis for Credit Tenant Lease Securitisations.⁹¹⁶

Office as an underlying property type came into fashion. As the slowdown occurred and companies' credit deteriorated, it became much more difficult to access capital. So, corporations started to take advantage of sale-leasebacks, which free up cash.

"Precisely because we appear to be in an economic slowdown in certain sectors of the market and in certain industries, the corporations within those industries need to find alternative methods for raising capital...Sale-leasebacks,

⁹¹⁴ Cf. Sheridan (2001), p. 117.

⁹¹⁵ Cf. Pollert (2000), p. 96.

⁹¹⁶ Johnson (2000), p. 36.

*financed with credit tenant loans, represent an effective off-balance-sheet strategy for raising capital away from the traditional debt and equity markets.*⁹¹⁷

Following are some CTL Borrower examples:

- Within the industrial sector, TYCO International through its subsidiary ADT. It was a \$51 million deal for a new ADT monitoring facility that holds a TYCO lease guarantee.⁹¹⁸
- Nortel, a telecom company, has done sales lease-backed transactions, which were funded by CTL securities.⁹¹⁹
- Qwest Corporation, another telecom company has financed itself with sale-leaseback transactions funded by Securitisation.⁹²⁰
- Retailers like Walgreen's have issued sale lease-backed notes.⁹²¹
- Railway lines have securitised income from yet-to-be built railway tracks: Burlington Northern and Santa Fe Railway Company.⁹²²
- Supermarket Chains like Shaw's Supermarkets – a subsidiary of J. Sainsbury – have finance their expansion by selling their leases and banking on their credit rating.⁹²³
- There have also been government agencies like the U.S. General Services Administration that have used the implicit government rating to finance their real estate.⁹²⁴
- Even international retailers like Royal Ahold (a supermarket chain holding company) have issued CTL securities under the 144 A rule. At the time, the issue set precedent for the market.⁹²⁵

⁹¹⁷ Kyle Gore, Managing Director, Real Estate Capital Markets, Legg Mason Wood Walker, Inc.'s. Cf. Anonymous (2001b), p. 11.

⁹¹⁸ Cf. Anonymous (2001b), p. 13.

⁹¹⁹ Cf. Anonymous (2001b), p. 13.

⁹²⁰ Cf. Homer (2002c), p. 15.

⁹²¹ Cf. Anonymous (2001b), p. 13.

⁹²² Cf. Homer (2002f), p. 17.

⁹²³ Cf. Homer (2002f), p. 17.

⁹²⁴ Cf. Homer (2002f), p. 17.

- Kmart was one of the original CTL credits with numerous transactions of early 1990s vintage. At high times it was estimated that an estimated \$2 billion of Kmart CTL paper was in the market. Those transactions that were mainly not rated by any of the nationally recognized statistical rating organizations originate all from the period of 1993-1995. Payment on the securities backed by those leases is dependent on either the flow of lease payments by a Kmart-related entity or a Kmart guarantee.⁹²⁶
- There were even transactions in which specialty real estate owners like the amusement park owner Cedar Fair, placed private securities that were based on rental cash flows from multiple amusement parks.⁹²⁷

4.3.4.2 Assets

As in the previous Singapore Analysis, in this chapter the securitised assets are described by Type of Asset, Cash Flows supporting the bond, Collateral/Security, Type of Real Estate and Property Category. Those will be delineated in the following.

Type of Asset

Resulting out of the US tax structure (REMIC) and out of the specific bankruptcy rules (which creates the need for a first lien on the property in CMBS), the assets that are securitised in the US are primarily interest and principal from mortgage loans; except for the case of CTL Securitisation, where the asset that is securitised, is the cash flow from a credit tenant lease. The type of assets that gets securitised is primarily interest and principal on mortgage loans, but the mortgage loans that are underlying the transaction are structured in different ways. They can be segmented by the different transaction schemes:

- Structured loans – based on long-term rental income – from very large trophy property assets (Single Property/Single Borrower “direct issue” CMBS)

⁹²⁵ Cf. Colomer (2001), p. 24.

⁹²⁶ Cf. Homer (2002b), p. 14.

⁹²⁷ Cf. Homer (2002d), p. 1.

- Large real estate loans on large properties (Large Loan CMBS)
- Small real estate loans on small properties (Conduit)
- Cash Flows from credit tenant leases (CTL Securitisation)

Cash Flows supporting the bonds

The cash flows that support the bonds are derived out of the real estate that is backing the securitised mortgage loans. Those cash flows incorporate rental cash flows that result out of current leases and other current income from the property as well as (more uncertain) rental cash flows from future leases that are dependent on the, location, quality and future potential of the property, i.e the property value. This is also the reason, why not the projected cash flows from the property are backing the bond, but the value of the real estate (except for the case of CTL Securitisations).

Collateral/Security

As opposed to Singapore, the collateral in all transactions (including CTL Securitisation) is a first lien on the property, i.e. a mortgage on the real estate underlying the loan. The reason why this is needed is attributed to bankruptcy laws. If, for example, only the lease payments from a credit tenant lease were underlying the transaction, then in the case of the bankruptcy of the tenant or the borrower, the investors would not get to their money. So, in any case there has to be a mortgage on the property securing the transaction, so that investors are hedged against hold-ups in payments due to bankruptcy.

Type of Real Estate (Property Types)

First of all, one has to distinguish between residential and commercial property. The Residential Mortgage-Backed Security market is a totally different fixed income market than the Commercial Mortgage-Backed Security market. Within CMBS there is not one property type that dominates. There are 5 different property types that can be identified in US CMBS transactions.

- Office
- Retail
- Multi-Family

- Hotel
- Specialty Real Estate (Parking Facilities, Amusement Parks, Sport Arenas, Health Care Centres, Hospitals, etc.)

Property Category

From a property category standpoint, the majority of real estate that gets securitised in CMBS is investment property. There are a few occasions, where it is feasible and doable to securitise real development property, but those occasions are limited to Credit Tenant Lease Securitisation, where the contracted tenant takes over the construction and timing risk. In CMBS no investor would want to take that risk. The third property category is corporate real estate. This is property that has previously been held by the corporation but that has not been used for funding the ongoing operations of the company. This is why Corporate Property is increasingly divested in sale-leaseback activities and the proceeds are invested in the core business. The sale-leasebacks are funded through Securitisations.

Following are a few selected examples of underlying assets identified in Chapter 3.4.4 that can be found as collateral for CMBS in the US.

Football Stadiums

Football Stadiums get securitised by the use of CMBS structures. Most of the times sport club owners cannot afford to build their own stadiums. So, they sell bonds to the public and finance it that way. The underlying asset in that transaction would be the mortgage loan on the stadium, but it would be backed by revenues and ticket sales derived from the stadium. So, the collateral is real estate (i.e. the building), structured into a mortgage loan.⁹²⁸

Real Estate Backed Whole Company Securitisations⁹²⁹

A very specific type of Real Estate Securitisation that has been developed in Europe has also been introduced into the US: Real Estate Backed Whole

⁹²⁸ Cf. Wolberg (2003), Interview 8, p. 554.

⁹²⁹ Cf. Ashenmil (2003), Interview 14, p. 554.

Company Securitisations. There the asset that gets sold in such a transaction is the going concern of the company, but it is backed by the real estate.

Real Estate Infrastructure Projects⁹³⁰

Even though the underlying asset in Real Estate Infrastructure Project Securitisations, like toll roads, power plants, water and sewer systems or airports, is real estate, in the US those transactions do not fall under the category of traditional CMBS. It falls under the category of project finance and this is the category under which those projects are securitised and placed.

Project finance is frequently securitised. As in a normal CMBS, in those deals the issuer also takes a mortgage on the real estate (e.g. power plant) as collateral for the deal. However, the motivation of the deal is differently. The investors are really betting on the power plant's ability to generate power, sell power and make money. This is a bet on the future.

Additionally to the investors being the party to hold the first lien on the property, infrastructure projects have another unique attribute to them that normal commercial properties in CMBS do not have. The projects/properties/real estate are usually essential to the functioning of the community. So, there has always got to be someone that runs the power plant or the toll road or the airport. At the end of the day, even if everything goes wrong, the investors have different options: they can relieve the owner, take over the plant, operate it themselves, release it or sell it.

There is no real difference between project finance and development finance, except for the fact that project financing is typically big development finance (i.e. big infrastructure projects), there are not really tenants involved and it falls under another category.

Development Assets

Real Estate Development Securitisation is another asset class that has been observed in the American Real Estate Securitisation market. In the mid 1990's Nomura tried to securitise real estate development projects financings into

⁹³⁰ Cf. Ashenmil (2003), Interview 14, p. 554.

CMBS, but it did not work. The reason lay in the investors' acceptance. Investors did not want to take new construction and development risk, because they did not understand it as well as credit risk. Investors in the CMBS market got used to real estate, but real estate development was not feasible for them. Besides that the average term in a development financing lies way below 5 years as opposed to the typical 10-year CMBS-Conduit loans.⁹³¹

Development financing is very time consuming and labour intensive. This is the underlying reason why investors do not want to buy it. The reasons why banks do it – as opposed to CMBS underwriters – is because they have whole departments set up to monitor the construction and to approve and fund construction draws.

“You have to have somebody to check the invoices and make sure that the contractors are not filing a lien against the property. It is very time consuming and investors do not want to deal with it, they want to finance properties that are already operating and leased.”⁹³²

This has led to CTL Securitisation being the only way to fund real estate developments. But also here the risks – as mentioned – above would have to be shifted to the contracted tenant.

This is what distinguishes the US from Singapore, where Development Real Estate Securitisations were possible, because local investors were prepared and willing to take development and construction risk. This is a cultural and local difference between the US and Singapore.

Future Cash Flows

Generally, even in the mature US Securitisation market it is difficult to place the riskier future cash flows Asset-Backed Security transactions.

⁹³¹ Cf. Ashenmil (2003), Interview 14, p. 554.

⁹³² Cf. Ashenmil (2003), Interview 14, p. 554.

“In the US with all the Securitisation we have done, everything that incorporates future risk, or future income makes it harder to place and therefore to securitize.”⁹³³

This is the main reason why future sales proceeds from property divestments or future lease receivables have not been securitised in ABS transactions.

Basically, the whole spectrum of property types and property categories have been financed via CMBS. The asset in those transactions is always the principal and interest that have been engineered into a mortgage loan to be serviced by the cash flows derived from the underlying properties. The collateral securing the transaction always has to be a first lien (a mortgage) on the property.

4.3.4.3 Motives

Funding

The prime motive in the US for CMBS is **cheaper funding**.⁹³⁴ Over time, the CMBS market has become so efficient, that commercial real estate developers or operators/investors, who are looking for some sort of financing end up with CMBS (as opposed to financing in the private market), because it has turned out to be the **most price-efficient product**.⁹³⁵

“[In CMBS] there was definitely lower financing costs.”⁹³⁶

A study that was done in 1995 came to the same conclusion that with CMBS execution cheaper funding is attainable. The study compared public and private real estate lending markets and it indicated that whole loans (private lending – banks/insurances) provide wider spreads than CMBS of comparable credit quality, i.e. CMBS provide cheaper funding than loans from private lenders.⁹³⁷

⁹³³ Cf. Robinson (2003), Interview 9, p. 554.

⁹³⁴ Cf. Ashenmil (2003), Interview 14, p. 554.

⁹³⁵ Cf. Boeckmann (2003), Interview 15, p. 554.

⁹³⁶ Cf. Ashenmil (2003), Interview 14, p. 554.

⁹³⁷ Cf. Rubin, *et al.* (1996), p. 39.

Conduit-CMBS have proven to be the most efficient and dominant execution in CMBS.⁹³⁸

- Conduits-CMBS offer cheaper financing on smaller loans. As a result CMBS have become the cheapest and most efficient funding source for the commercial real estate industry.
- Conduit-CMBS are not asking for personal guarantees on loans. It is non-recourse financing, as compared to traditional bank financing.
- Conduit-CMBS are offering very competitive packages that include a cap on legal fees, environmental reports and other third-party reports. Above that, while banks are charging 0.5–1.0% fees on loan originations, Conduits are not taking such fees.

In general, Securitisation has turned out to be the most efficient form of financing in the US. So, overall CMBS has become the cheapest funding tool. Even though traditional lenders like banks and insurance companies still compete for loans, in a lot of cases Securitisation gets chosen as it offers very efficient execution.⁹³⁹

Flexibility

However even though efficient execution and cheap funding are the primary motives, over time borrowers have become aware that CMBS financing incorporates tough covenants and less flexibility.

In recent times it has become more popular for borrowers to **maximize flexibility** instead of tying up an asset with long-term debt, which is locked out. Hence, the borrower motives for choosing Real Estate Securitisation heavily depend on the strategy that the borrower has for the property. The key question in that case is:

⁹³⁸ Cf. Mishra (1998b), p. 20.

⁹³⁹ Cf. Choe (2003), Interview 13, p. 554.

“What type of property it is – is it a stable property with little cash flow upside in the near term or is it more of a transitional property with a lot of cash flow upside?”⁹⁴⁰

So, if it is a long-term owner then the thrive for flexibility is lower as if the borrower is short-term opportunistic investor. This will also influence the decision for or against CMBS financing – the more concerned a borrower is with flexibility, the lower probability that he is going to choose Securitisation as a financing alternative. Eventually, the investor will have to outweigh his funding gain with the loss in flexibility. Historically, in low interest rate periods, borrowers find long-term fixed rate debt attractive in order to lock in a low interest rate for a longer period of time. So, in that case the interest rate environment also influences the decision and **long-term funding** becomes also a motive.⁹⁴¹

Loan-to-Value (LTV) Ratios

To get a higher Loan-to-Value ratio than with a traditional bank financing would be a motive for borrowers in CMBS, but it is generally not available in traditional CMBS, because somebody needs to take that high LTV-risk and it is typically not the capital market.⁹⁴² Credit tenant Lease Securitisation is the only transaction type that under certain circumstances allows for higher LTV ratios.⁹⁴³

Since, the amount of debt in a Credit Tenant Lease Securitisation is dependent on the rating of the tenant, there can be different amounts of debt on the same building with different tenants. In essence with the same 20-year triple-net lease, different levels of debt are attainable depending on the credit of the tenant. This leads to the following rule

The higher the rating of the tenant, the lower the interest rate on the bond (i.e. the lower the discount rate for the lease cash flows), and hence, the higher the present value of the lease cash flows (i.e. the debt).

⁹⁴⁰ Choe (2003), Interview 13, p. 554.

⁹⁴¹ Cf. Choe (2003), Interview 13, p. 554.

⁹⁴² Cf. Boeckmann (2003), Interview 15, p. 554.

⁹⁴³ Cf. Ashenmil (2003), Interview 14, p. 554.

Asset-Divestment

In the case of a corporation owning the real estate that it occupies, in most cases it makes sense to divest it in a Sale-Leaseback, funded through a Securitisation. If the company has an investment grade credit, the motive would be to realise the value of the real estate with the highest price possible and invest the money into the business or higher yielding assets.

“Let us say that this building on the real estate value generates a cap rate of 7-8% and let us say that Legg Mason is able to get a better return on equity than 7-8%, because if you can, then you should extract the \$90 million of excess value and put it into your core business – where you are probably getting 15-20% on equity. Why own the real estate?... as long as you control it for a long period of time – 20-year lease with 5 ten-year options – why care?”⁹⁴⁴

In a CTL transaction, the real estate through a sale-and-leaseback arrangement would be sold to a third party investor (long-term investor, who is essentially buying the upside of the building in 20 years). The acquisition would be funded through the Securitisation of the credit tenant lease in the capital markets and the financing proceeds would go to the corporation. Then the corporation can invest those funds into their core business or distribute the cash flows to the shareholders.

Off-Balance Sheet Financing

Off-Balance Sheet Financing is a strong motive only for companies engaging in Credit Tenant Lease Securitisations, for all other transaction schemes the financing is on-balance sheet for the borrower under the mortgage loan. For a corporate tenant a well-structured lease qualifies as an operating lease and therefore as an off-balance sheet leases. The corporation can, hence, sell its real estate, get the money for it and lease it back on an operate lease, so it does not show up on the balance sheet. This way the company has monetized its asset – even though it is a structured financing.⁹⁴⁵

Diversification of funding base

⁹⁴⁴ Cf. Jacobs (2003), Interview 19, p. 554.

⁹⁴⁵ Cf. Jacobs (2003), Interview 19, p. 554.

For many retailers the motives for doing Sale-Leasebacks funded by CTL Securitisations, is that they can fund their ongoing expansion. So, the diversification of the funding base is an important motive in CTL.⁹⁴⁶

In general, CTL transactions offer the highest use package for the borrower:⁹⁴⁷

- Cheap Funding on the basis of a credit tenant lease.
- Higher LTV than with traditional or CMBS Conduit financing.
- Economic advantage in monetizing assets. Especially for retailers this helped fund the continued and aggressive expansion of stores.
- Better allocation of funds.⁹⁴⁸
- Off Balance Sheet Financing

However, there are also Disadvantages, if the borrower is a corporation:⁹⁴⁹

- **Loss of Flexibility for the Corporation**

It's difficult for businesses to predict occupancy requirements over a lengthy lease term, which CTL requires. Likewise, they may not have contemplated extended terms into the original lease, making renewals potentially expensive. So, the financing takes away flexibility from the corporation.

- **Sacrifice of Upside Potential**

For example, a corporation that sells their real estate assets in a sale-leaseback, which gets securitised as a CTL, gives up the future potential of the real estate (assuming an operating lease). Even though a bond-lease structure provides pricing that is near the corporate cost of funds, it requires that most, if not all, of the debt amortizes over the term. This means that the new investor's/developer's building is essentially paid for during the life of the lease with the lessee having little ability to take

⁹⁴⁶ Cf. Jacobs (2003), Interview 19, p. 554.

⁹⁴⁷ Cf. Sheridan (2000), p. 90.

⁹⁴⁸ Instead of a 10% to 13% rate of return on their real estate, corporations can invest the money into their core business and try to get a 20% or greater return on their capital.

⁹⁴⁹ Cf. Johnson (2000), p. 36.

advantage of the low basis because of accounting rules (assuming an operating lease).

4.3.4.4 Transaction Schemes

Chapter 4.3.2.3 has identified 4 different transaction schemes that broadly fall under the category of Commercial Mortgage-Backed Securities. Those are:

1. Single Asset/Property – Single Borrower CMBS
2. Large Loan CMBS
3. Conduit-CMBS
 - a. Conduit-CMBS
 - b. Conduit-Fusion
4. Credit Tenant Lease Securitisation

The reason why those different transaction schemes have evolved is that sponsors have essentially created the right combination of mortgage loans with the right quality of diversified cash flows for the different types of investors.⁹⁵⁰ So, investor preferences, underlying properties and mortgage loans respectively as well as different structural variations have influenced the evolution of those four schemes. The different schemes will be delineated and analyzed in the following part. As Credit Tenant Lease Securitisation comes the closest to the concept of Real Estate Securitisation introduced in chapter 3, the most thorough analysis lies on that scheme. All other CMBS schemes are analyzed and described in the following chapter.

4.3.4.4.1 Commercial Mortgage-Backed Securities

This sub-chapter goes into detail on the structural features of Single Property / Single Borrower CMBS, Large Loan CMBS, Conduit-CMBS and Conduit-Fusion CMBS. It is therefore a gathering of all structures that are subject to the classical CMBS setup and rating criteria. The real estate underlying the mortgage loan and its ability to generate cash flows is the core of the CMBS

⁹⁵⁰ Cf. Boeckmann (2003), Interview 15, p. 554.

concept. This is different in Credit Tenant Lease Securitisation transactions. The real estate plays a minor role whereas the cash flow from the lease with a credit tenant is the central Proposition of a CTL Securitisation. Even though Credit Tenant Lease Securitisation is usually also summarized under CMBS, the concept, the structuring process, the structural features, the placement and the trading differ from classical CMBS deals.⁹⁵¹

The following analysis will go into the key structural aspects of CMBS transactions.

Transaction Setup

A CMBS Securitisation transaction has three principal and two minor participants. The leading players are the mortgagor (borrower), the issuer (lender), and the securities holder (investor); the minor and operational participants are the collateral participants: the servicer and the trustee. The trustee holds the mortgage collateral 'in trust' and oversees the flow of funds. The servicer, on the other hand, receives the principal and interest payments from the mortgagors and passes the proceeds to a distribution account held by the trustee.⁹⁵²

It is not unusual in these transactions for the trustee to control the distribution of the property's income, which is called 'lockbox' rent provision. This enhances the credit for the transaction and is favoured by rating agencies. Under such provisions the rental income is swept twice each month and placed under the control of the trustee. Then, the trustee follows a prescribed release agreement that includes debt service, real estate taxes, insurance reserves, replacement reserves, and, finally, operating expenses. Lockbox provisions can easily interfere with the management and maintenance of each asset in the pool.⁹⁵³

Origination:

⁹⁵¹ Cf. Ashenmil (2003), Interview 14, p. 554.

⁹⁵² Cf. Fiedler and Devoe (1995), p. 15.

⁹⁵³ Cf. Fiedler and Devoe (1995), p. 16.

Banks that sponsor CMBS transactions are set up differently. There are some firms do the underwriting internally and some that do it externally. If a bank does it in-house then it needs to have experienced underwriters on-staff.⁹⁵⁴

When a commercial bank, without a conduit vehicle engages into a 'Large Loan' transaction, the loan is usually structured and tranced into different pieces that are sold off separately. Hence, the lender does two things:⁹⁵⁵

1. The lender originates the mortgage loan in a very standardised way so that he can sell it into the highly standardised CMBS market.
2. The lender structures and tranches the mortgage loan, so that it can be placed in the market.

Once the loan is underwritten, it gets structured and sold. In that process the lender sells the higher rated tranches 'AAA' and 'AA' to brokers and dealers "into the street". Those people who are fixed income salesmen and only know little about real estate. However, they only place highest rated tranches, where it does not matter to the investor what the underlying asset is. After that, with the lower rated tranches it becomes a bit more specific, so the real estate lender needs to sell and support those tranches himself. This is where the lender's real estate expertise comes in. He supports the sales process towards investors, because those security classes are more real estate driven and need more expertise that only the lender has.⁹⁵⁶

In essence, there exists only one loan. The 'AAA' investment grade portion of that loan is placed out – no real estate expertise, only bond market experience needed. The "subordinate" portion is done by special real estate lending institutions (like Eurohypo⁹⁵⁷) because there real estate expertise is needed.

So, on the lower rated side the lender works together with other investment banks and mixes his mortgage loan into an asset pool, where it is most efficient

⁹⁵⁴ Cf. Choe (2003), Interview 13, p. 554.

⁹⁵⁵ Cf. Boeckmann (2003), Interview 15, p. 554.

⁹⁵⁶ Cf. Boeckmann (2003), Interview 15, p. 554.

⁹⁵⁷ Eurohypo in the US, for example, is contributing mortgage collateral to other investment banks' transactions. The company does not have a separate Securitisation platform in the US,

for the arbitrage. The arbitrage is greatest, when the most efficient subordination levels⁹⁵⁸ are achieved. Once the investment bank has bought the loan, it gets warehoused until the portfolio makes up a good collateral pool for a CMBS issuance.⁹⁵⁹

In Conduit transactions the originators of mortgage loans are usually subsidiaries or contract operators for investment banks that sponsor CMBS Conduit transactions. There are concrete guidelines that tell the originators exactly what the loan should look like: Debt Service Coverage Ratio, Loan-to-Value, Loan Size, Net Operating Income and geographical distribution. So, as long as the loan fits into that scenario the loan gets underwritten and it gets warehoused. Once there have been enough loans aggregated the sponsor sets up a deal. So, as compared to Europe or Asia, the loans do not get originated through a bank per se. The Wall Street firms and their affiliates effectively act as a bank, but they are effectively taking the commercial banks out of the loop.⁹⁶⁰

Transaction Execution

Generally, there are two different execution methods involved in Commercial Mortgage-Backed Securitisation:⁹⁶¹

1. The issuer uses funds from a warehouse line of credit to close mortgage loans. Once the warehouse line is filled, he issues securities based on the collateral of these mortgages. Subsequently he repays his warehouse lines of credit from the proceeds of the issuance. This vehicle would then be called a Conduit⁹⁶² – it is a Conduit into the capital markets.

but it co-arranges deals and originates mortgage loans of a certain size. Cf. Boeckmann (2003), Interview 15, p. 554.

⁹⁵⁸ This happens the higher the investment-grade portion of a transaction is, because this leads to a lower overall funding cost.

⁹⁵⁹ Cf. Boeckmann (2003), Interview 15, p. 554.

⁹⁶⁰ Cf. Wolberg (2003), Interview 8, p. 554.

⁹⁶¹ Cf. Fiedler and Devoe (1995), p. 6.

⁹⁶² Cf. Ashenmil (2003), Interview 14, p. 554.

2. The issuer sells securities before he can actually close each commercial mortgage loan. Hence, this second approach involves simultaneous mortgage closing and securities issuance. It works best for Single Asset/Single Borrower transactions. However, once the security is collateralized by a pool of different assets made up of multiple borrowers, this execution method becomes a lot more difficult and effectively too complex to execute.

The feasibility of the first execution method and the demand for smaller mortgage loans led to the rise of the Conduit-CMBS market.⁹⁶³ Conduit companies, which are usually affiliated with investment banking firms, became strong bidders for mortgage loans. The lending intensity rose to levels that had not been experienced since the mid-1980s. The development was fuelled by all the conduit lenders being willing to offer warehouse lines of credit that made it unnecessary for real estate borrowers to share the risk of securitising their mortgage loans.⁹⁶⁴

As the borrowers were not sharing the Securitisation risks with the lender any more, this in return led to an increased risk exposure of Conduit-CMBS sponsors. The two main risks in CMBS transactions for Conduit firms that principal a loan for Securitisation are:⁹⁶⁵

1. Rating Agency Risk – This is the risk that the rating agencies will not give the firm the capital structure that it has anticipated for the portfolio, and hence, the potential arbitrage decreases.
2. Interest Rate / Market Risk – This is the risk that market spreads during the warehouse period are widening. Hence, the sponsor is not able to place the loan at the conditions that he planned and that he underwrote the loan at. This might not only decrease the potential arbitrage to be made, but if interest rates really shift dramatically in a short term, it might incur losses for the firm.

⁹⁶³ Most of the time a CMBS Conduit is not a separate entity but a department within the investment banking firm.

⁹⁶⁴ Cf. Fiedler and Devoe (1995), p. 5.

⁹⁶⁵ Cf. Choe (2003), Interview 13, p. 554.

Size of Loans in Conduit-CMBS

Loans that get originated for Conduit-CMBS transactions can vary in loan size. The classical Conduit deal by US standards incorporates 100 loans at \$6 million a piece.⁹⁶⁶ However, mortgage loans in Conduit transactions can be as small as \$1 million and as big as to \$50 or 60 million, depending on the type of the deal. Once the bank starts to mix in larger loans (up to \$50 or 60 million a piece) with typical small Conduit loans (\$6 million a piece), the deal becomes a Conduit-Fusion transaction.⁹⁶⁷ In those transactions, the number of big loans that get mixed in is limited to five to ten large loans.⁹⁶⁸

So for illustration, a classical Conduit deal would be \$600 million, i.e. 100 loans at \$6 million a piece. Then if this deal is topped up with another \$300-400 million in large loans, it becomes a Conduit-Fusion deal. The reason for the rise in large loan components added to Conduit transactions is due to the issues of stand-alone risk and terrorism insurance of large properties in pure large loan transactions. Since, the Conduit market has proven to be the most stable CMBS segment, it makes sense to add large loans to it because this then makes large loans more marketable to investors.⁹⁶⁹

Total Deal Size

Total size can range from \$600 million (typical conduit deal) to \$1.5 billion with the majority of deals being around \$1 billion. Transactions below \$600 million are possible, but a portfolio has to be big enough to absorb the costs of the transaction and to provide a certain level of diversity. So, the minimum size that a transaction must have is at least \$400 million.⁹⁷⁰

⁹⁶⁶ Conduit loans are not all exactly \$6 million – the size usually ranges from \$4 million to \$8 million, but it is smaller loans. Cf. Corcoran (2003), Interview 12, p. 554.

⁹⁶⁷ Everything that is above \$20 to \$25 million a piece would be considered a large loan in a Conduit-Fusion deal. Cf. Corcoran (2003), Interview 12, p. 554.

⁹⁶⁸ Cf. Choe (2003), Interview 13, p. 554.

⁹⁶⁹ Cf. Corcoran (2003), Interview 12, p. 554.

⁹⁷⁰ Cf. Choe (2003), Interview 13, p. 554.

"It would be inefficient to place anything on the capital markets that is below \$300-400 million."⁹⁷¹

Fixed vs. Floating Debt

In addition to the different transaction schemes within CMBS there is also the choice between a fixed or floating interest rate structure with the corresponding maturities.

Fixed rate debt is less flexible than floating rate debt and typically has longer lockout periods. The advantage for the borrower, however, is that CMBS can provide a certain interest rate for the entire loan term for him. For fixed rate loans the term is usually ten years and the loans are typically locked out for most of the term. Borrowers, which are long-term owners, usually opt for fixed rate debt. Especially in low interest rate periods, borrowers find fixed rate debt attractive. So, in low interest rate periods the demand for fixed rate debt with long maturities is high.⁹⁷²

The fixed rate market as it is today, is made up of Conduit and Conduit-Fusion transactions, where the gross of the transactions has become Conduit-Fusion type deals. Conduit Loans have traditionally been fixed rate 10-year balloon payment mortgage loans and the covenants lock up the borrowers against prepayment.⁹⁷³ However, the maturity preferences are changing, as recently the demand for 5-year loans has risen. Over time this will lead to a multitude of different maturities offered in Conduit-CMBS.⁹⁷⁴

Floating rate debt, on the other hand, typically has shorter maturities and much shorter lockout periods but the interest rate can fluctuate. Floating rate loans typically range from 2 to 5 years with a lockout period that ranges from 1 year to 2 years. Additionally there can be some sort of prepayment protection. So the

⁹⁷¹ Cf. Jacobs (2003), Interview 19, p. 554.

⁹⁷² Cf. Choe (2003), Interview 13, p. 554.

⁹⁷³ Unlike the Mortgage-Backed Security (MBS) market that is primarily concerned with prepayment in residential mortgage loans, due to tough covenants, prepayment is not an issue in CMBS. Cf. Corcoran (2003), Interview 12, p. 554.

⁹⁷⁴ Cf. Corcoran and Phillips (2001), p. 43.

borrower might be locked for a year and then has a penalty that may be starting at 2% or 3% and is declining from there on.⁹⁷⁵

The market for floating rate debt is much smaller than the market for fixed-rate debt. However, it is especially more appealing to people who want to sell their property in the near future or who are transitioning the property to another use or concept. Those borrowers want flexibility. They do not want to be locked into a fixed rate mortgage.⁹⁷⁶

“This product has been very popular for borrowers who want to have maximum prepayment flexibility.”⁹⁷⁷

The floating rate CMBS market is made up of floating rate Conduits.⁹⁷⁸ Floating rate transactions usually incorporate between 10 and 40 loans. The floating rate loans tend to be larger than Conduit-type mortgage loans. The properties tend to be less stabilized. Sometime new construction is going on and sometimes the properties are being renovated. As a result the owner does not have what the rating agencies call stabilized financial statements. The borrower is hence attempting to get the property through a transition period and to establish better financials, so that at the end of the transition period he can lock in a more favourable rate in the long term borrowing market.⁹⁷⁹

The ultimate choice of the borrower really depends on his real estate strategy:

- Is he a long or short-term holder?
- What type of property is it?
- Is the property going through a transition?
- Is it a stable property with little cash flow upside in the near term or is it more of a transitional property with a lot of cash flow upside?

⁹⁷⁵ Cf. Corcoran and Phillips (2001), p. 43.

⁹⁷⁶ Cf. Corcoran (2003), Interview 12, p. 554.

⁹⁷⁷ Cf. Choe (2003), Interview 13, p. 554.

⁹⁷⁸ In this case Conduit does not stand for the classical conduit type loans but for the vehicle that is bringing the floating rate loans to the capital market.

⁹⁷⁹ Cf. Corcoran (2003), Interview 12, p. 554.

Sometimes it is even possible to have both fixed and floating rate bonds under one transaction.⁹⁸⁰

Rating/SPV/Placement

The SPVs that issue CMBS in the US usually reside on-shore. Generally, the entities are US entities incorporated in Delaware, the state with the most favourable trust laws. The vehicles all opt for the REMIC tax-exempt structure to avoid double taxation. The bonds that they issue are normally all rated – no matter if they are privately placed or publicly placed.⁹⁸¹

There are no options embedded in the bonds. Embedded options make securities inefficient and harder to place, as investors have a hard time predicting and pricing them.⁹⁸²

Transactions can be publicly or privately placed or may even have certain classes, which are public and certain classes, which are private. The 'AAA' tranches are usually publicly placed out to investors, i.e. they are listed. The more junior tranches (starting at 'A') are the ones that are privately placed and are more credit spread driven. If the bonds are placed in a private transaction then it is not a publicly registered transaction. Most private transactions fall under the 144A selection and are transaction that can only be place with certain types of investors: Qualified Institutional Buyers. In private transactions, the bonds primarily get traded by the banks that have arranged or co-arranged the deals. If the transaction had a critical mass and a lot of investors are interested in them, also other banks will trade the bonds as well.⁹⁸³

Generally, most of the fixed rate bonds are placed in the US whereas a good amount of the floating rate bonds are placed on the European side, where floating rate debt has a different standing.⁹⁸⁴

Special Servicers in CMBS

⁹⁸⁰ Cf. Choe (2003), Interview 13, p. 554.

⁹⁸¹ Cf. Choe (2003), Interview 13, p. 554.

⁹⁸² Cf. Boeckmann (2003), Interview 15, p. 554.

⁹⁸³ Cf. Boeckmann (2003), Interview 15, p. 554.

⁹⁸⁴ Cf. Choe (2003), Interview 13, p. 554.

One structural peculiarity of the US CMBS structures that arose out of the Resolution Trust Corporation (RTC) structure is the special servicer in CMBS transactions.

“...special servicers were born as a phoenix out of the RTC ashes – they were created because of the RTC, because they worked out these problem loans using tax payer money and buying at substantial discounts. Then they had this big infrastructure that they did not know what to do with once the RTC was gone. So between them and the rating agencies there was a special servicer class created.”⁹⁸⁵

Generally in a CMBS transaction, there is a servicer⁹⁸⁶ and a special servicer. So if the loan goes into default, the loan is transferred from the servicer over to the special servicer.⁹⁸⁷ Special Servicers in CMBS transactions work out non-performing or sub-performing assets in the best interest of the security holders. Being the clean up institution in such a deal, the special servicer usually has to buy the first loss/equity piece in the CMBS transactions that they service. This way the underwriter can cope with the principal agent problem that is resident in such a setup – it guarantees an alignment of interest. The special servicer has to buy a piece of the first loss tranche, because the senior investors want to make sure that their special servicer has the correct incentive structure. In order to cope with this very special situation the special servicer also has to be a very specialized investors with an intensive real estate know-how. Apart from that the special servicing company has to have the operational capabilities and qualities to engage in that and it has to be willing to provide such high risk capital. The special servicer advance payments up to the point that is deemed recoverable. In practice this means that if the special servicer does not believe that he can get the money back anymore, he will stop advancing money and will start distributing losses to the lowest rated tranches.⁹⁸⁸

⁹⁸⁵ Jacobs (2003), Interview 19, p. 554.

⁹⁸⁶ In such transactions the servicer is also called Master Servicer. This is the institution that takes care of the interest and principal payments during the course of the transaction.

⁹⁸⁷ Cf. Choe (2003), Interview 13, p. 554.

⁹⁸⁸ Cf. Boeckmann (2003), Interview 15, p. 554.

“On a single tenant building – if it were vacant – the advances would be horrendous. A building of this magnitude does not stay vacant for 6 month; it stays vacant for 18 month until it is released. So you have down time, you have got to pay leasing commissions, tenant improvements and you still accrue interest on the loan. So if this building went empty, it wouldn’t be long for the special servicer to say: “Stop – no more advances” and it will start filtering through.”⁹⁸⁹

So, for the lowest rated class (i.e. the equity/first loss piece) bondholders to make sure that the special servicer acts in their best interest, they appoint an operating advisor. The operating advisor can consult with and/or direct the special servicer in certain cases. However, basically the special servicer recommends a course of action, which can be work out, forbearance or foreclosure.⁹⁹⁰

Overall, in US CMBS transactions the defaults have been quite low, so that the CMBS structure and the real capabilities of special servicers have never been tested. A CMBS Conduit has never seen a Securitisation “go belly up” before. So the true value and the true work out capacity in times of foreclosure crisis is still to be proven.⁹⁹¹

Diversification – Core Concept of CMBS⁹⁹²

The reason for the pricing efficiency in CMBS results out of diversification. Banks do not have that. With CMBS, the underwriter puts one mortgage into a pool of mortgages and this gives the transaction diversification benefits that create ultimately the arbitrage opportunity for the investment banker, who is putting together the right combinations and the right pools of collateral. This is a very active process that has to be convex with the rating agencies. The way that diversification benefits create pricing efficiency is by turning a ‘BB’+ loan into a ‘AAA’ tranche, a ‘AA’ tranche, a ‘BBB’ tranche – with subordination levels that are ever decreasing. That is really the arbitrage that has been created. This

⁹⁸⁹ Jacobs (2003), Interview 19, p. 554.

⁹⁹⁰ Cf. Choe (2003), Interview 13, p. 554.

⁹⁹¹ Cf. Jacobs (2003), Interview 19, p. 554.

⁹⁹² Cf. Boeckmann (2003), Interview 15, p. 554.

is the reason why the market has become very efficient. The more mortgages are put into a pool, the higher the 'AAA' tranche gets, due to diversification effects.

Concluding this sub-chapter, it becomes evident that the CMBS structures have matured and that the market – especially the Conduit-CMBS and Conduit-Fusion segment – has become a very standardized and pricing efficient market. The pricing difference in Large Loan, Conduit-CMBS and Conduit-Fusion transactions compared to traditional bank financing primarily results out of the diversification effect. All deal components and structural features are pre-defined and homogenous: underwriting criteria (DSCR and LTV ratios), loan sizes, maturities, interest rate (fixed for long-term and floating for short-term), balloon payments, lock-up covenants, work out capabilities in case of non-performing assets (special servicer), property types and geographic diversification.⁹⁹³

4.3.4.4.2 Credit Tenant Lease Securitisation

The Securitisation of future lease payments resulting out of a Credit Tenant Leases is called Credit Tenant Lease Securitisation. This incorporates a single investment grade credit tenant lease that gets sold and funded through a Securitisation of the pre-defined lease payments over a certain period.⁹⁹⁴

As mentioned in chapter 4.3.2.3, there are three types of Credit Tenant Securitisation transactions, depending on who the borrower is and what the purpose of the transaction is:⁹⁹⁵

1. **Sale-Leaseback:** The Borrower under this CTL type is a Corporation that has an investment grade rating, that wants to monetize its real estate assets and that seeks funding through a corporate Sale-Leaseback deal. The company sells all the real estate to a special purpose vehicle and then leases it back. The underwriter then will create a loans backed by a mortgage against the property and sell it to an

⁹⁹³ Cf. Gichon (1999), p. 6.

⁹⁹⁴ Cf. Ashenmil (2003), Interview 14, p. 554.

⁹⁹⁵ Cf. Jacobs (2003), Interview 19, p. 554.

issuing SPV.⁹⁹⁶ The vehicle engaging into the transaction is funding the acquisition through the issuance of Credit Tenant Lease paper.

2. **Built-to-Suite:** The Borrower under this CTL structure is a Developer that is constructing a built-to-suite property for an investment grade tenant. The Securitisation of future lease payments from the underlying credit tenant lease represents the construction funding for the built-to-suite construction.
3. **Outright Acquisition:** The Borrower in this case is a third-party investor who is buying another investor's investment property, which is leased to a single investment grade tenant. The third-party investor's acquisition is funded by the issuance of Credit Tenant Lease Securities backed by the credit tenant lease on the building.

As CMBS is becoming very commoditized the quest for greater loan origination volume is driving some capital markets oriented lenders to push beyond Conduit-CMBS into the very specialized credit tenant lease market. Credit tenant loans differ from typical Conduit loans in that CTL loans are complex and technically demanding. They are characterized by high Loan-to-Value and low Debt Service Coverage Ratios. The underlying mortgage loan is structured in such a way that the interest and principal on the loan exactly match the lease cash flow of the underlying property over the term of the transaction. Hence, this means that over the course of the transaction the debt on the property is fully amortized by the credit tenant lease and the owner of the property owns the property outright.⁹⁹⁷

Due to the high leverage and intensive reliance on the tenant's ability to pay, the underwriting and structuring of such securities require a high expertise that is different from making typical CMBS loans:

*"The bottom line is CTL financing is a highly technical specialty business, which does not easily lend itself to a commodity financing mentality."*⁹⁹⁸

⁹⁹⁶ Cf. Ashenmil (2003), Interview 14, p. 554.

⁹⁹⁷ Cf. Pollert (1998), p. 96.

⁹⁹⁸ Pollert (1998), p. 96.

This type of high leverage lending depends on the credit tenant's rent stream. It is the lease cash flow that repays the underlying mortgage loan. The certainty of the credit tenant rent stream is protected by the lender providing lease enhancements to mitigate the risk that the tenant will interrupt rent as a result of a real estate-driven event, such as a casualty or condemnation of the property, or the failure of the landlord to satisfy its obligations under the lease.⁹⁹⁹

*"These loans have to be very carefully underwritten as they are characterized by low-debt service coverage and they are dependent upon the quality of the lease from the credit tenant. While there is room in the marketplace for several competitors to do well, it is not a place where the big conduits or other people who are not devoted to this particular market are going to do well."*¹⁰⁰⁰

As in the previous chapter with CMBS, the following analysis will go into the key structural aspects of CTL transactions.

Structural Peculiarities - Valuation

The financing situation in a Credit Tenant Lease Securitisation is somewhat unique for real estate financing. This can be demonstrated by the following example:¹⁰⁰¹

A property, which has a credit tenant lease on it, is appraised at \$ 3 million. However, the present value of all lease cash flows derived from the credit tenant over the next 20 years is worth \$ 5 million.¹⁰⁰² If this financing was structured as a Credit Tenant Lease Securitisation, the financing would set the loan at 140% Loan-to-Value. Comparing this to a traditional CMBS financing, at the highest possible LTV, which lies at 80% LTV for Conduit loans, the borrower would only get a loan that is equal to \$2.4 million.

⁹⁹⁹ Cf. Pollert (1998), p. 96.

¹⁰⁰⁰ Paul McDowell, Senior Vice President, Capital Lease Funding. Cf. Bergsman (1998), p. 46.

¹⁰⁰¹ Cf. Wolberg (2003), Interview 8, pp. 554.

¹⁰⁰² The total sum equals the present value of all lease cash flows over the next 20 years discounted at the investment grade company's bond yield plus a premium of another 50-100 basis points for illiquidity and risk. Cf. Jacobs (2003), Interview 19, p. 554.

Therefore the fundamental difference in those two cases is the approach to valuation. The question is are you valuing the property as a real property investment or as the value of future lease payments:¹⁰⁰³

- In the CTL case the financier is looking to the credit tenant and his ability to pay the future lease payments first and then in the next step he is looking at the underlying real estate and the value that this real estate would have under a worst-case scenario.
- In the case of a CMBS financing, the lender would look at the real estate first, and then at the tenants renting the real estate. In the first step the tenants are not that important, especially if they are on short leases. So, what the lender really looks at is the real property value. In a second step, the Conduit lender examines the fit of the loan within the portfolio of another 100 mortgage loans on multiple properties.

In essence, in the case of a CTL the credit enhancement of the transaction derives out of the investment grade rating of the tenant and his commitment to pay, whereas in a typical CMBS transaction the credit enhancement results out of the diversification within the pool of mortgage loans.

Additionally to the lower DSCR and LTV ratios that traditional financings incur, there is also a valuation difference between the cash flow valuation of a lease and the valuation of the building underlying a standard CMBS loan. If, for example, there is a 20-year credit tenant lease on the property, then the value of the pre-defined cash flows might differ from the appraised value. The reasons are twofold:¹⁰⁰⁴

1. The value of the property subject to the lease is different from the market valuation/appraisal of the property. So, if the credit tenant for example signs a lease of \$40 a square foot, but the market rate is at \$20, the appraisal will assume that the building is rented at \$20. The lender in a CTL financing can assume it is \$40. Since, this value differs from the

¹⁰⁰³ Cf. Boeckmann (2003), Interview 15, p. 554.

¹⁰⁰⁴ Cf. Jacobs (2003), Interview 19, p. 554.

appraised value and since it is based on the lease, it is called the “lease fee value” – the value of the property subject to the lease.

2. The discount rate used in traditional valuations is different from the discount rate used in CTL valuations. Traditional appraisals do not account for the quality of the tenant in the building, as does the lease fee valuation.

Underwriting of CTL¹⁰⁰⁵

When underwriting a CTL security there are two different valuations that are done.¹⁰⁰⁶ The first one is a valuation of the lease and the second one is a “go dark” – worst case scenario valuation.

1. What is the value of the building with the credit tenant in it for 20 years?

The value of the building subject to the lease is determined by the net cash flows over the term and the adequate discount rate. Once, the lender has come to the adequate discount rate¹⁰⁰⁷, he takes all the net cash flows and discounts them to the present value, which then equals the value of the building.¹⁰⁰⁸

2. If the credit tenant goes out of business tomorrow, what is the value of the building?

The “go dark value” of the property is a value that is based on worst-case scenario. It assumes the value of the building without a tenant in it. In this case the valuation incorporates downtime, leasing commissions, tenant improvements and everything else that the investor needs to consider when trying to get the property leased again. The “go dark values” are usually forced down to be very low and come out at 40-60 cents on the dollar, i.e. this represents 40-60% of the value of the total financing – the

¹⁰⁰⁵ Cf. Jacobs (2003), Interview 19, p. 554.

¹⁰⁰⁶ The normal appraisals that are made for traditional real estate focused lending are worthless in the case of CTL financing.

¹⁰⁰⁷ The discount rate is derived from the capital markets. If the investment grade tenant has public debt in the market place, the lender can take the yields that the corporate bonds trade at and add a premium for illiquidity and other risks to them. The premium usually ranges anywhere between 25 bp and 100 bp. Cf. Jacobs (2003), Interview 19, p. 554.

¹⁰⁰⁸ Cf. Boeckmann (2003), Interview 15, p. 554; Jacobs (2003), Interview 19, p. 554.

total value of the issued CTL paper. Hence, this value represents the stop-loss/downside risk hedge for the investments.¹⁰⁰⁹

In a nutshell, the Credit Tenant Security is much like a corporate bond with a downside risk hedge. The downside risk is hedged by the value of the property, which means that in the worst case, when the credit tenant is not able to pay the lease anymore and the owner of the property does not jump in and wraps up the transaction, the investors will always have the possibility to foreclose on the property. In that case, the investor will receive the value that this property has on the market as it “goes dark”.

“When K-Mart went down 6 years ago the Corporate Bonds traded down to nothing, but its Credit Tenant Lease paper traded down to the value of the property.”¹⁰¹⁰

Additionally to the downside risk hedge, investors get a higher return on those securities than they would get on equivalent corporate bonds of the same credit tenant. Hence, it can be a much safer investment for investors.¹⁰¹¹

Beyond the benefits of private CTL bonds, there are also some disadvantages that public corporate bonds do not have. First CTL bonds only get traded by the banks that have underwritten the securities, and the issuances are rather small compared to public corporate bonds. Hence, this results in illiquidity. Secondly, public bonds can have covenants in the borrowing documents that restrict the total amount of debt that the corporate can take on. CTL bonds do not have such covenants. Those two caveats are also the reason why CTL bonds trade at a higher yield than plain vanilla corporate bonds of the same company.¹⁰¹²

There are certain structural features that credit tenant lease Securitisation deals have to fulfil in order to be advantageous for the tenant, the borrower and the investors.

Bankruptcy Remoteness

¹⁰⁰⁹ Cf. Jacobs (2003), Interview 19, p. 554.

¹⁰¹⁰ Cf. Jacobs (2003), Interview 19, p. 554.

¹⁰¹¹ Cf. Jacobs (2003), Interview 19, p. 554.

¹⁰¹² Cf. Jacobs (2003), Interview 19, p. 554.

In the US, in most states a lender has to secure his interest in a property (i.e. the credit tenant's cash flow) by a lien on the property. Therefore, the lender in a Credit Tenant Lease Securitisation will always require a mortgage on the property as well as an absolute assignment of the leases – the rents, in order to perfect the claim to the property cash flow.¹⁰¹³

So, in order for the credit tenant lease to be turned into a security and be placed in the capital markets, it has to be structured into a credit tenant loan that is collateralized by a first lien on the property – this puts the CTL investors in the front of the chain of creditors, in the case of a bankruptcy of the borrower. As US bankruptcy laws are so bad this is imparative:¹⁰¹⁴

“I mean, here I am – I have given you a \$110 million, you have absolutely nothing to do with the property. First year of the deal it happens that the tenant files bankruptcy – and the owner can delay me for 2 years with the claim against equity – not for 20 years, as there is no equity in the deal. But the owner can hold me up, that is ridiculous.”¹⁰¹⁵

This is the reason why the structure needs to be set up as bankruptcy remote entity and the property needs to be in the bankruptcy remote entity. The entity is the borrower in this transaction. It can own no other assets; it can perform no other trade, except the ones associated with this building. It can incur no other debt. And depending on the size of the financing, it would need to have an independent director.¹⁰¹⁶

In addition, the issuing SPV there needs to hold a mortgage against the underlying property. This SPV is usually a pass-through trust governed by a trustee. The trustee in most cases is a bank and banks do not go bankrupt.

In some cases, when the property is of outstanding quality in a non-duplicable location, then it is even possible to get a rating that is above the credit tenants

¹⁰¹³ Cf. Jacobs (2003), Interview 19, p. 554.

¹⁰¹⁴ Cf. Homer (2002b), p. 14.

¹⁰¹⁵ Cf. Jacobs (2003), Interview 19, p. 554.

¹⁰¹⁶ Cf. Jacobs (2003), Interview 19, p. 554.

rating.¹⁰¹⁷ So, by combining the credit tenant cash flow with a first lien on a high-grade property a higher LTV on the deal would be achievable.

Deal Size of CTL

Deal sizes in Credit Tenant Lease Securitisations range from \$5 million to \$1 billion, depending on the size of the property or the number of properties that are leased out to one tenant. The average deal size, however, is around \$25 million. So, small deals sometimes can be placed with one investor, whereas larger deals can be done with a multitude of investors. In order to diversify their CTL securities portfolio, a lot of investors always want to participate with small amounts (\$5 million) in every deal.¹⁰¹⁸

Lease Structure

Leases in CTL Transactions have to be arms-length operating leases in order to qualify for off-balance sheet treatment. For this to happen, the following conditions have to apply to the CTL transaction:¹⁰¹⁹

- No covenants.
- No debt guarantees.
- No downgrade triggers.
- No residual value guarantees.
- No equity role by the tenant.

In order for credit tenant leases to be securitisable, they have to be bondable leases. If they are not then there are mechanisms that turn triple-net and double-net leases into bondable leases by eliminating the tenant's termination and rent abatement rights, or at least protecting the investor from such an occurrence. The sense for doing this is that investors only want to worry about the credit of the investment grade tenant, and not about terms of the lease.¹⁰²⁰

¹⁰¹⁷ Cf. Homer (2002b), p. 14.

¹⁰¹⁸ Cf. Jacobs (2003), Interview 19, p. 554.

¹⁰¹⁹ Cf. Homer (2002e), p. 17.

¹⁰²⁰ Cf. Richards (1999), p. 10.

The lease structure enhancements included specialized, non-cancellable insurance policies to cover the risk of tenant termination or rent abatement, or the establishment of adequate reserves to cover landlord responsibilities such as structural repair and parking issues – items that could trigger the termination or rent-abatement provisions in a lease. All in all, on the lease structure side there exists a number of "hot-button" lease provisions that should be avoided in order to be able to use the lease in a Credit Tenant Lease Securitisation. Some of these provisions include:¹⁰²¹

- termination clauses tied to another tenant;
- environmental clauses;
- off-site/use exclusivity restrictions;
- substitution of like property;
- and highway construction/obstruction access.

Security Structure

As in traditional CMBS transactions, in CTL deals there has to be a mortgage underlying the transaction for bankruptcy remoteness reasons. The cash flows from the credit tenant lease have to be structured into interest and principal of a credit tenant loan that is secured by a mortgage over the borrower's property. The reason can be demonstrated by a small example:¹⁰²²

Supposing there is a Real Estate Asset-Backed Securitisation backed by the rental cash flows of an investment grade corporation. If that corporation gets into trouble the status of a rental cash flow by this formerly credit worthy large corporation is nothing more than an unsecured promise to pay. Unsecured means that the investor would be the last person in line in case of bankruptcy.

¹⁰²¹ Cf. Richards (1999), p. 10.

¹⁰²² Cf. Corcoran (2003), Interview 12, p. 554.

“The fact that it has the words real estate sprinkled on it means nothing in terms of where you stand if you have to stand in front of a bankruptcy judge.”¹⁰²³

So, there needs to be a mortgage that backs this deal, no matter how credit worthy the tenant is. There is no way that an underwriter can just securitize a credit tenant's cash flows without having a mortgage over the borrower's property.

Legal Structuring in CTL

The single property, standard CTL deals do not involve a lot of legal structuring. Once, the documentation has been built up for one deal, it can be replicated for other deals. This way the sponsors do not have to consult expensive law firms for every deal. Most sponsors prefer inexpensive local law firms to expensive international firms, as CTL financing traditionally is a local game.¹⁰²⁴

“Our attorneys – we use only two sets of councils, because there is consistency of how we approach it. I do not want a \$100,000 legal bill from New York and nor do I want 27 law firms calling me every 10 minutes, saying: “What do you really want to do here?” In my law firms there may be 8 lawyers who work on our account – they know exactly what we will say on any situation. We get through it rather quickly.”¹⁰²⁵

When the loans are made, they are put into private pass-through securities, which are not rated and placed privately with major insurance companies primarily in the US and the UK.¹⁰²⁶

Structuring of CTL – Term Sheet Documents for the Borrower

As CTL is a small niche, high return business, the whole structuring is done in-house. The transaction workflow is as follows:¹⁰²⁷

1. The deal request comes in.

¹⁰²³ Cf. Corcoran (2003), Interview 12, p. 554.

¹⁰²⁴ Cf. Jacobs (2003), Interview 19, p. 554.

¹⁰²⁵ Cf. Jacobs (2003), Interview 19, p. 554.

¹⁰²⁶ Cf. Jacobs (2003), Interview 19, p. 554.

2. A relative value analysis is done.
3. The lender concludes if the deal is favourable for both sides.
4. The borrower needs to send a copy of the lease.
5. The due diligence, the appraisal, and the environmental review are done.¹⁰²⁸
6. The borrower will receive a 27-page term sheet, including everything that the borrower needs to know: conditions, timing, costs. The loan documents are usually not negotiated.
7. If the borrower agrees to the loan contract, the lender will lock up the rate and schedule the closing.

The closing times of a deal can range from within one week to 14 months, if it is really complex. Because the deal structure is standardized and the rating of the CTL bonds is only dependent on the rating of the credit tenant, once the vehicle is set up, the firm can ride the synergies and replicate the deals. This leads to a very fast execution, which is another advantage of CTL financing over CMBS financing.¹⁰²⁹

Deal Documentation – Offering Circular to Investors¹⁰³⁰

The deal documentation includes all the things that the security buyers would want to know. So the investor document, which is often called the offering circular, typically takes the same form in every deal:

1. Overview of the transaction
 - a. Where it is offered.
 - b. The offering amount.
 - c. The collateral.
 - d. The average life.

¹⁰²⁷ Cf. Jacobs (2003), Interview 19, p. 554.

¹⁰²⁸ Most of the firms have an extensive due diligence handbook. The gross of the analysis is done in-house, but sometimes outside consultant are required to review the reports.

¹⁰²⁹ Cf. Jacobs (2003), Interview 19, p. 554.

2. Ratings Analysis
3. Structure Analysis
 - a. How the transaction is sold.
 - b. Who the guarantor is.
4. Narrative description of the transaction (the defined terms spelled out)
 - a. Where the security comes from.
 - b. What the rates are.
 - c. The reference to the NAIC guidelines (Schedule and Rating).
 - d. Borrower information.
 - e. How the cash flows go from the tenants directly to cover the debt.
 - f. Right that the tenant has.
5. Exhibits – This is how CTL documentation distinguishes itself from CMBS documentation. An investor wouldn't usually get to this information unless he is B-piece buyer.
 - a. Information about anybody providing credit support to the transactions.
 - b. Rating's analysis.
 - c. Copies of the lease.
 - d. Appraisals and Valuation.
 - e. The loan documents.
 - f. The environmental reports.

So with this comprehensive information, investors know what the deficiency of the deal might be and what the mitigation factors and what the problems are in the transaction.

Placement of CTL

¹⁰³⁰ Cf. Jacobs (2003), Interview 19, p. 554.

Typically CTL Securitisations are sold privately, i.e. they are not listed securities. If they were placed publicly, the underwriter would register them with the Security Exchange Commission (SEC) and then sell it as debt in the capital markets. However, public placements are very hazardous and are not worth the time and effort, as all the CTL bonds are usually held by big institutions and there is no real trading market.¹⁰³¹

For private placements, there are two broad exemptions to public securities registration:¹⁰³²

1. The first one is Rule D. Rule D under the securities act is a particular group of investors – sophisticated, knowledgeable and even individuals, if they have particular net worth. It is for small private placements.
2. The second one is 144 A. Investors under the Rule 144-A, are called Qualified Institutional Buyers (QUIBs). They need to have \$100 million of discretionary income for investment in private securities – excluding treasuries and government obligations. Most of the investment bank clients meet that test. So, this rule is for larger private placements.

Most CTL Securities are placed under the 144-A exemption. The offering document underlying the transaction is also called '144-A'. There are certain registration rights for a particular period of time and after that the issuer can register the paper as a public security. In most CTL deals sponsor do not give investors those rights, because they want to do the trading in those deals. Once, the security is a registered 144-A security, it gets quoted and every other firm could trade the bonds.¹⁰³³

The market is a very inefficient and private market, which allows for great fee income to be made. Issuers want to keep their offering documents confidential, so that no other bank can copy them:

"...so I keep it close to home. I want to trade – I do not want Lehman or Salomon to trade it and see the documents. Now, what we have found out

¹⁰³¹ Cf. Ashenmil (2003), Interview 14, p. 554.

¹⁰³² Cf. Jacobs (2003), Interview 19, p. 554.

¹⁰³³ Cf. Jacobs (2003), Interview 19, p. 554.

though, because investors like our product, Lehman will trade our stuff without seeing the document. They bid it and sell it.”¹⁰³⁴

Above that, the CTL department that has underwritten the deal usually also trades the CTL paper because the people know the documents. They will do the pricing, sell CTL securities and confirm trades. The securities are not traded through wire (there is no electronic clearing) – the securities are actually delivered to somebody, which makes the process very cumbersome.¹⁰³⁵

Structural feature for Built-to-Suite CTL

Credit Tenant Lease Securitisation is a good instrument for financing new real estate construction. However, as construction is very risky there has to be a credit tenant lease already signed and structured in a certain way, before financing is committed.

But, even if there is a credit tenant lease on it, investors still want to have the security that they can fall back to the real estate, in case of the tenants or developers bankruptcy. In this case to be sure that construction will be finished on-time and that lease cash flows will start to come in on a certain date, the lease has to start at a certain date. So, even if the building is not built the tenant has to start paying by a certain date. If the investment grade tenant agrees to that, the structure implicitly obtains a construction completion guarantee from the investment grade tenant. In essence, if the building does not get built on time, the tenant has to take over from the developer. And then, if the tenant cannot get it done by a certain date, the loan document requires the credit tenant to pay the loan back to investors at 105-110% of our original loan amount (for the investors' opportunity costs).¹⁰³⁶

One vs. Multiple Tenants

In nearly all cases, Credit Tenant Lease Securitisations, solely incorporate one lease on one building with one investment grade rated tenant in it. In the case

¹⁰³⁴ Cf. Jacobs (2003), Interview 19, p. 554.

¹⁰³⁵ Cf. Jacobs (2003), Interview 19, p. 554.

¹⁰³⁶ Cf. Ashenmil (2003), Interview 14, p. 554.

of one building that has more than one credit tenant lease on it, it gets very difficult to finance that building through a CTL structure.¹⁰³⁷

Theoretically, it might be possible to structure multi-tenant CTL Securitisation. Assuming that the borrower has ten credit-worthy entities in one building – which is very unusual – then on paper the argument could be made that it is possible to value each floor space separately by the credit of that tenant. The underwriter could ascribe a rate of interest to each credit tenant and take the income from the lease each year, discount it and get the present value. Then he would sum up all the different present values of each floor and this figure would be equal to the value of the building subject to the multiple credit tenant leases.¹⁰³⁸

Even though this could theoretically be figured out, it nevertheless is not placeable with investors. Especially insurance investors that are the primary buyers of CTL bonds – under the NAIC guidelines – are not allowed to buy multi-tenant credit tenant loans that are scheduled as a Schedule D. So, if there are no investors, it does not matter if it is theoretically doable or not, because practically it is not placeable and rating agencies will not consider it as credit tenant loan but as a real estate loan.¹⁰³⁹

Another reason apart from the insurance regulation is that investors usually want to look to one credit in a CTL transaction not to multiple credits. So, if there is a multi-tenant buildings, even if all of the tenants are investment grade rated, it is virtually impossible to place it with investors in the US. The reason lies in the structure:

“Because let us say that you had 10 very strong investment credits in this building and two of them go bankrupt – can happen – you do not have enough cash flow to support the debt, but you cannot foreclose on the property and you

¹⁰³⁷ There have been cases, where investment banks have arranged this. Cf. Jacobs (2003), Interview 19, p. 554.

¹⁰³⁸ Cf. Jacobs (2003), Interview 19, p. 554.

¹⁰³⁹ Cf. Jacobs (2003), Interview 19, p. 554.

cannot tell all the other tenants to leave – to sell the building – because they are paying their rent as agreed.”¹⁰⁴⁰

Even though the SPV, which is holding the portfolio of credit tenant leases, has the right to release the space this potential hazard makes the transaction too complex to be feasible. Assuming that the space can be re-rented at the right market rents, two other things will happen to the transaction:¹⁰⁴¹

1. With the bankruptcy of one tenant, there is a breach in the credit tenant loan contract and since there is no longer a credit tenant loan, it is no longer a CTL bond. Hence, it becomes a real estate loan. As a result the insurance investors' risk adjusted reserves “go through the roof”.
2. Investors are not in the real estate business, and the lender that has structured the credit tenant loan is in the corporate loan business and not in real estate.

“I do not know anything about real estate. Many of my investors never see the real estate – they bought a Legg Mason leaseback deal NAIC-1, scheduled D to be a corporate bond. Even if it is real estate underlying it – and god forbid if they ever have to foreclose it, they have got to hire somebody to come in and tell them what to do. They have no idea what to do.”¹⁰⁴²

So, a multitude of credit tenants in one deal adds another layer of complexity to the transaction that is not desired by investors.

This does not necessarily mean that Multi-Tenant buildings do not get financed well, but not as a Credit Tenant Lease Financing with a high Loan-to-Value (LTV). Opposed to a 100% LTV in the case of a building with one good credit tenant, in a multi-tenant transaction there will only be a maximum of 80% LTV achievable. So, even if the borrower has a portfolio of really good credit tenants,

¹⁰⁴⁰ Jacobs (2003), Interview 19, p. 554.

¹⁰⁴¹ Cf. Jacobs (2003), Interview 19, p. 554.

¹⁰⁴² Jacobs (2003), Interview 19, p. 554.

the deal does not get financed with more than 80% LTV. Moreover, it is more expensive.¹⁰⁴³

Multi-tenant transactions can get structured, but not as a CTL and it is more expensive to place those. The reason lies in the structure:¹⁰⁴⁴

1. If there is a bond-like credit lease on a building, the tenant has to pay or he goes bankrupt – there is no other possibility. That is the credit risk that investors take and lenders underwrite this credit risk. So, from the investor's standpoint it is looked upon as a secured corporate debt, secured by the real estate.
2. If there is a multitude of good credit tenants, but more than one credit lease on the building then there is a fluctuation risk. It might be good from a diversification standpoint to have a property leased to numerous good credit tenants but the tenants could leave anytime, when the lease is up or they can go bankrupt. This, to investors, is a much higher risk than the risk of just one credit tenant.

All in all, underwriters and investors would categorize multi-tenant transactions as CMBS deals. Unless there is only a single credit tenant with a good quality lease, investors and underwriters cannot look past the real estate to the credit of the tenants. As a result the transaction gets more expensive, as CMBS prices are always wider than Corporate bonds and CTL securities.¹⁰⁴⁵

Hypothetical Example Case for a Credit Tenant Lease Securitisation:¹⁰⁴⁶

The building for this example case is located in downtown Baltimore and is currently leased out to "EBS" Corporation. The acquisition of the building was financed on a credit lease basis.

The building is leased on a 20-year basis to EBS Corporation and EBS is a 'A3' credit. So, it is a healthy investment grade company with a positive outlook. The real estate is appraised at \$10 million. The lease that EBS Corporation agrees

¹⁰⁴³ Cf. Ashenmil (2003), Interview 14, p. 554.

¹⁰⁴⁴ Cf. Ashenmil (2003), Interview 14, p. 554.

¹⁰⁴⁵ Cf. Ashenmil (2003), Interview 14, p. 554.

¹⁰⁴⁶ Cf. Jacobs (2003), Interview 19, p. 554.

to pay is either gross or net. If it is a gross lease, where the landlord has to pay the expenses, the expenses get deducted and inflated, so that over a 20-year timeframe there is a consistent cash flow that can be taken as the basis for the transaction cash flow. If it is a net lease – as it is most of the time – the tenant will pay all of the operating expenses and the NOI can be taken as the basis for the transaction cash flow.

In the next step these net cash flows are taken and discounted at a 'A' corporate bond rate plus the spread for risk and the lack of liquidity. The present value of those 20-year cash flows at a rate which is representative of the credit risk of the tenant – in this case EBS Corporation – is \$15 million. This is the amount of the credit tenant loan that the lender commits to the acquisition of the building.

The lender funds the credit tenant loan by putting it into a private CTL Security. This is done by setting up a special purpose vehicle that acquires the credit tenant loan and funds itself by issuing bonds backed by the credit tenant lease on the building. The transaction does not need to be rated, as EBS Corporation is already rated. The securities get privately placed with insurance companies in the US that by the NAIC guidelines are allowed to invest into investment grade credit tenant loans and securities thereof. The transaction gets scheduled as Schedule D, which is a corporate bond. The risk weighting for the insurance company is lower than what it would be for a traditional mortgage loan. So, for the insurance company's purposes, the security is a corporate bond, but for EBS Corporation's purposes, the lease is an operate lease, i.e. an off-balance sheet lease – it is not a capital/finance lease. So, EBS Corporation sees it as being off-balance sheet, which means that it is not a liability in the company's balance sheet, whereas the insurance company investors classify it as investment grade corporate debt. Hence, the corporation views it one way and the regulators look at it another way. This is what it makes it attractive for both sides.

So, in conclusion the property owner that acquired the building with a credit tenant lease on it will get a credit tenant loan from the lender of \$15 million, whereas the appraised value of the property is \$10 million. The inclination of the lender to engage in this financing lies in the fact that he can place it with invest

ors that do not care about the appraised value of the property. This results out of the insurance investors not betting on the building and its value, but on EBS Corporation being solvent and being able to pay the rent each month.

At closing, the real estate owner will receive \$15 million from the lender. For the term of the lease the owner, who acquired the building will not receive any payment from EBS Corporation for bankruptcy reasons; the payments go directly into the Special Purpose Vehicle that has funded the credit tenant loan by issuing securities at the capital market. The SPV is then directly pays out interest and principal to the investors each month. At the end of the term the buyer owns the building outright – all debt has been amortized by the credit lease.

4.3.5 Analysis

“Securitisation is probably the biggest single change affecting our financial landscape during the past sixty years, since the Great Depression. The implications for this linking of the creators of debt and the global capital markets has monumental implications for banks, thrifts, and insurance companies. It broadens greatly the investment options available to institutional investors and will change how they buy, monitor and price the assets in portfolios.”¹⁰⁴⁷

In the following the results of the previous analysis in this chapter will be summarized, starting with a short description of the first 5 (landmark) transactions and the general evolution of the market.

Real estate was one of the last major asset classes to go public. The impact of the public capital markets on commercial real estate debt (especially in the 1990s) has transformed both property markets and real estate capital markets.¹⁰⁴⁸ The evolution of Commercial Mortgage-Backed Securities resulted out of the functioning Residential Mortgage-Backed Securities market, that started in 1966. The RMBS market was heavily supported by the government through its government-sponsored entities: Fannie Mae, Ginnie Mae and Freddy Mac. The entities were insuring and guaranteeing interest and principal

¹⁰⁴⁷ Fink (2000), p. 126.

¹⁰⁴⁸ Cf. Katz (1997), p. 18.

in RMBS transactions. This led to a development of investor demand that favoured the inception of CMBS. The CMBS market got started in 1984 and evolved out of 5 landmark transactions:

1. The **Olympia & York** transaction in early 1984 arranged by Salomon Brothers was the first CMBS transaction. It was a \$970 million, 15- year, unrated Single Borrower transaction that involved 3 underlying assets that were pledged by a blanket mortgage. Since there was no market in place, Salomon took the risk to develop a market around this issue. If it had not been for that the market would have started as soon as 1984.
2. The **Penn Mutual Life Insurance Co.** transaction in December 1984, which was also arranged by Salomon Brothers. The deal was a landmark transaction because it involved a CMO structure. It was the first CMO structured to be secured by commercial (income producing) properties.
3. The **American Express** Securitisation arranged in May 1985 essentially became the first Credit Tenant Lease Securitisation. As all the predecessors deals this deal was also arranged by Salomon Brothers, but it was the first deal to get a rating by Standard & Poor's. American Express thereby financed its 2.3 million square-foot new world headquarter at the World Financial Center. The \$500 million finance of a property that was not fully constructed, yet, posed big problems. Salomon came up with a new structure that was similar to a CMO structure. The structure was linked to the credit of the credit tenant: American Express.
4. The next logical step in CMBS was multi-tenant stand-alone deals. **Olympia & York Maiden Lane Finance Corporation** was the first multi-tenant CMBS. The \$200 million 'AA' rated 10-year bond issuance was backed by one property (59 Maiden Lane) and had three major tenants whose leases expired well after the maturity of the bonds.
5. The last landmark deal in this development was **Fisher Brothers Financial Realty Company**. The rated \$160 million bond issuance was the first transaction involving a building with a diversified number of

tenants (25 tenants). The leases had varying maturities and expired before and after the maturity of the bonds.

Even though all those transactions were Single-Borrower transactions, they set the standards for future multi-borrower transactions (Large Loan, Conduit-CMBS, Conduit-Fusion).

The removal of the Regulation Q in 1980 and the following deregulation of the Savings & Loans industry led to a strong crisis in real estate lending in the mid-1980's and it nearly brought down the whole financial system. The Financial Institutions Reform Recovery and Enforcement Act (FIRREA) of 1989 instituted the Resolution Trust Corporation (RTC) that – by selling off all non-performing mortgage asset in Securitisation transactions – opened the CMBS market. The RTC showed that commercial mortgage Securitisation was even possible with non-performing assets, and so investment banks started to create vehicles that did the same thing with performing real estate assets. The actions of the RTC paved the way for the issuance of securities backed solely by commercial mortgages, just as Ginnie Mae introduced residential mortgage securities to the capital markets.

Additionally, the credit crunch in the early 1990's created a need for long-term real estate financing, which created arbitrage potential for Investment banks. The arbitrage resulted out of the willingness of the public market to pay significantly more for the bond cash flows than the crunch-afflicted private lending market. So, this was the inception of a new market segment and the start of the modern CMBS market, as it is known today.

As opposed to the pre-RTC era, where most of the CMBS deals were Single Property/Single Borrower transactions, the majority of deals done in the post-RTC era were Large Loan CMBS and later Conduit- (small loans) and Conduit-Fusion (mixed small and large loans) CMBS transactions. As opposed to the conventional CMBS transactions, Credit Tenant Lease Securitisations have been a small niche and are likely to stay that way. The biggest transaction scheme today has become Conduit-CMBS. The success of the CMBS-Conduits came about because they filled a void for longer term, fixed-rate, and non-recourse mortgage loans for smaller borrowers that was left over by the failed Thrift industry.

Despite the abundance of capital that the CMBS market has created, underwriting standards have always remained high. With that Wall Street has done a better job disciplining the real estate lending market than the banks had done in the 1980's

Apart from the traditional real estate lending sources (banks, insurance companies & pension funds), today, there exist three structures in the capital markets that allow real estate owners, developers, operators and investors to raise capital (debt and equity):

1. The Real Estate Investment Trust structure (REIT) – equity structure
2. The Mortgage-Backed Security structure (including all CMBS schemes except for CTL) – debt structure
3. The Lease Securitisation structure (CTL) – debt structure¹⁰⁴⁹

The capital market basically has disintermediated the traditional private lenders and created new financing alternatives for all kinds of real estate investors, operators and developers. As a result, CMBS has become the fastest and easiest way of raising capital for real estate.

The overall Mortgage-Backed Securitisation market has run through all 4 stages of the Securitisation market evolution model and is today characterised by a high degree of standardisation. CMBS bonds have become a commodity in real estate financing and fixed income investing.

Who was involved?

- The Government sponsored entities – Fannie Mae, Ginnie Mae and Freddy Mac for starting up the secondary mortgage market and the adjacent RMBS market.
- Rating Agencies were strongly involved in the evolution of the market. Standard & Poor's as the first rating agency to set up a credit rating system and issue CMBS criteria was the innovator in that field.

¹⁰⁴⁹ As CTL Securitisation, like all other transaction schemes in the US are mortgage related, they all fall under the category of Commercial Mortgage-Backed Securities.

- Salomon Brothers and Nomura as the innovators in Single Borrower/Single Asset (Salomon) and Large Loan transactions (Nomura). Wall Street Investment Banks in general played an important role in the intermediation of real estate credit. They have been a catalysts for the shift from credit to capital markets
- The government through its regulatory agencies have instituted the Resolution Trust Corporation (RTC) through the FIRREA Act.
- Big Developers, like O&Y, and big corporations, like Amexco that took the risks in the first transactions.

In the beginning it was primarily big developers and big corporations. As the market evolved it became smaller real estate players. Today, the vast amount of CMBS that get issued are Conduit-CMBS, i.e. issuances backed by a large portfolio of small loans. So, now everybody that seeks or commits real estate financing is in one way or another involved with Commercial Mortgage-Backed Securitisation: real estate developers, operators, investors and all kinds of corporates that hold real estate.

Which assets?

Assets are primarily interest and principal payments on commercial mortgage loans, backed by income-producing real estate. The **cash flows supporting the bonds** are derived out of the real estate that is backing the securitised mortgage loan. A mortgage as underlying **collateral** in the transaction has proven to be the most adequate security. But even, if the real property were transferred to the SPV (as suggested in pure form of Real Estate Securitisation) that would not make a difference. One way or another the property has to back the issue and the investor has to be able to get to that property. The mortgage has just proven to be the most advantageous, price-efficient and bankruptcy remote instrument.

The **types of real estate** that back the securitised mortgage loans vary across all property types (office, retail, multi-family, hotel and specialty real estate). From a **property category** standpoint, the majority of real estate that gets securitised in CMBS is investment property. There are a few occasions, where it is feasible and doable to securitise real development property, but those

occasions are limited to Credit Tenant Lease Securitisation. Corporate property increasingly gets securitised, even though it is primarily backed by sale-leaseback agreements.

Why do assets qualify?

In the beginning the underlying assets were large 'trophy properties'. Then it developed into more diverse asset classes. Today mortgage loans on all kinds of assets are securitisable.

Assets have to be interest and principal payments structured into a mortgage loan that can be backed by all kinds of income-producing properties.

What motives?

The prime motive for choosing CMBS loans over private market loans in the US is cheaper funding, which is resulting out of a most efficient execution.

*"The capital markets have proven that commercial mortgage Securitisation can save real estate owners 40-60 basis points per annum. On a \$100 million mortgage, this difference translates into a \$500,000 to \$750,000 savings each year in financing costs. Owners and developers have found that the capital markets can consistently provide financing for larger projects and at lower costs, in contrast to insurance companies and pension funds, which are in and out of the market depending on their ability to raise capital."*¹⁰⁵⁰

Motives include:

- **Cheap Financing** – there is an arbitrage to be made between the capital markets and the traditional private real estate financing markets.
- **Non-recourse long-term financing** (especially in the beginning)
- **Efficient Execution**
- **Diversification** of funding sources
- **Capital markets financing** without being rated
- **High LTV** (for well-structured CTL)

¹⁰⁵⁰ Adler (1987), p. 26.

Although Commercial Mortgage-Backed Securities may be a cheaper source of financing for owners and developers in the US, the capital markets are not the appropriate financing source for all commercial real estate borrowers. The lower cost of funds that can be found in the capital markets is accompanied by tougher underwriting criteria and covenants. Therefore CMBS financing goes in sync with less flexibility. On the other hand, traditional institutional lenders offer higher interest rates but have less restrictions on the loans. Hence, it is a trade-off that borrowers have to make: **Flexibility vs. Funding costs/Interest rates.**

What structures/schemes?

The following transaction schemes are summarised under CMBS:

1. Single Asset/Property – Single Borrower CMBS:

This transaction scheme incorporates one property or one borrower. Thus, those transactions are dependent on the quality of the underlying property and the sponsor's credit. It is mainly large real estate corporations that directly issue Single Property/Single Borrower CMBS directly at the capital markets.

2. Large Loan CMBS:

Those transactions incorporate a small number of large mortgage loans on commercial real estate. The deal is dependent on the sponsor's credit and on the quality of the underlying properties. The minimum size of a loan in a Large Loan transaction is \$20 million, but usually the average is \$60 million.

3. CMBS – Conduit¹⁰⁵¹

Those transactions are independent from the sponsor's credit, the underlying granular portfolio of small mortgage loans on commercial property serves as credit enhancement for the investors. There are two types of Conduit transactions (today the share of all Conduit transactions lies between 70%-80% of all issued CMBS):

¹⁰⁵¹ Those transactions are sometimes also called stand-alone transactions as they stand alone without the borrower's credit.

- a. **Conduit-CMBS** (the portfolio only consists of homogenous small mortgage loans – average size: \$6 million)
- b. **Conduit-Fusion** (the portfolio primarily consists of small mortgage loans – average size: \$6 million – and a small number of large loans –size: more than \$50 million)

4. Credit Tenant Lease Securitisation

Those transactions are totally independent of the sponsor's credit. They are dependent on the property's tenant credit and partly on the quality of the property. There are three types:

- a. **Sale-Leaseback** – Borrower is a Corporation: it represents the funding for a classical credit-rated Corporate Sale-Leaseback deal.
- b. **Built-to-Suite** – Borrower is a Developer: it represents the construction funding for the built-to-suite construction of a credit tenant.
- c. **Outright Acquisition** – Borrower is a third-party investor: it represents acquisition funding for an investor that buys a building with a credit tenant lease on it.

Between those four transaction schemes there are really two categories that can be distinguished: Credit Tenant Lease Securitisation and all the other schemes (Single Property/Single Borrower, Large Loan, Conduit-CMBS, Conduit-Fusion). Although all schemes are summarised under CMBS, the main difference for the borrower choosing between a CTL and all the other CMBS transactions is the attainable Loan-to-Value ratio. If there is just one tenant in the real estate, the tenant has an investment-grade credit rating and the lease is a bondable lease, then most certainly the LTV on the credit tenant loan is higher than on the CMBS loan.

Apart from the LTV, the alternatives differ depending on the loan term, the borrower's inclination to recourse and covenants, and the real estate's debt capacity:

1. **CMBS Loan** (Single Property/Single Borrower, Large Loan, Conduit-CMBS, Conduit-Fusion):

- a. A CMBS loan typically is 20 to 25 years in amortization with a 10-year balloon payment.
- b. It is a non-recourse loan.
- c. The borrower is subject to Loan-to-Value and Debt Service Coverage Ratio constraints (75% LTV and 1.3 – 1.35 DSCR).
- d. There will be tough covenants on the CMBS loan (concerning second mortgage loans, prepayment, sale of asset etc.).

2. **Credit Tenant Loan** (CTL):

- a. A credit tenant loan can be as long as the lease is. Usually at least 15 years.
- b. It is a non-recourse loan to the borrower. The borrower is banking on the credit of the tenant.
- c. There exist no Loan-to-Value and Debt Service Coverage Ratio constraints, because in a credit tenant loan the Loan-to-Value is calculated on the basis of the present value of the credit tenant's lease cash flows. So, regardless of the real estate value, the real estate owner (i.e. the borrower) can achieve a LTV-ratio of up to 100% and more.
- d. The covenants on credit tenant loan contracts are also tough, but the transfer of property is generally not prohibited.

This results in CMBS loans overall being more expensive than CTL transactions with very high credit tenants.

Which role played which environment?

All environments played an important role in the evolution of the market and the overall framework in the US is one of the most favourable in the world. This fact

is ultimately supported by America's position in the Jones Lang LaSalle (JLL) Global Real Estate Market Transparency Index.¹⁰⁵²

Looking at the different environments in form of a ranking then there are some fixed environments and there are some variable environments in the US. Within this spectrum the investor and rating agency environment are number 1, because both are crucial to getting the transaction put together:

*"To do a deal with one but without the other wouldn't work. The other things are important, but we are smart people – we can usually work within the bounds of tax, legal and accounting issues. But I got to get rating agencies and I got to get investors on board, otherwise I cannot do a deal."*¹⁰⁵³

- **Regulatory and legal environment** was the nucleus of the evolution:

In the US the regulatory environment is primarily made off of the bank supervision agencies. The SEC plays rather a minor role. The regulation of the banking system was the nucleus for the evolution of the CMBS market. The de-regulation of Thrifts led to a 'loan-underwriting craze' in the 1980's nearly led to the failure of the whole banking system. This in return – through the FIRREA Act and the involvement of the RTC – led to the evolution and broad acceptance of Commercial Mortgage-Backed Securities in the US debt market.

Above that, the supervision agencies have an influence on the day-to-day business in CMBS, as they are looking at Securitisation from two different angles:

- I. From the angle of the supervised banks doing Securitisation.
- II. From the angle of the supervised banks buying the notes from Securitisation.

¹⁰⁵² The Jones Lang LaSalle index maps different countries and regions with respect to legal factors, tax and other regulatory burdens, governance and disclosure of listed investment vehicles, quality of market fundamental research, and availability of investment performance indices. It relates the resulting transparency scores to each country's per capita GDP. One rule that can be derived is that the more per capital GDP a country has, the better the transparency score. The US with the highest per capita GDP has an enormous transparency and ranges behind the UK and Australia. Cf. Corcoran and Iwai (2004a), p. 2.

¹⁰⁵³ Ashenmil (2003), Interview 14, p. 554.

From a legal standpoint, the key concept for all Securitisations has always been the bankruptcy remoteness of the assets in the SPV and the effective security interest. This has been supported by the legal environment as the legal system in the US, which is based on case law, is very sound. It was always legally possible to set up bankruptcy remote structures.

- **Tax environment** had a great influence for the inception of CMBS:

“Much of the growth and evolution of financial markets has been affected by regulation and taxation, and the mortgage-backed securities market is no exception.”¹⁰⁵⁴

In the early years there were limits to what multi-class mortgage securities could accomplish as issuers were faced with complex tax, accounting, and regulatory obstacles. The tax obstacles were addressed in the Tax Reform Act of 1986, which created Real Estate Mortgage Investment Conduit (REMIC), which allowed for multi-class MBS like CMOs, but without the tax impediments. Since then, there have been tremendous growth and innovation in multi-class MBS (RMBS and CMBS).

“Tax Reform is one major force”¹⁰⁵⁵

The institution of the REMIC tax structure, since then, has spawned a new generation of CMBS that had a broader appeal to investors and issuers alike. The tax structure led to an increase in volume, a reduction in costs and the production of greater efficiencies in the fast growing market for securities backed by real estate. It provided issuers with significant new opportunities to raise capital more efficiently and at lower costs.

- **Accounting environment** did not play a great role in the evolution, but is important for day-to-day structuring:

“Whilst the accounting treatment is very rarely, if ever, the key driver behind Securitisation transactions it is in the current environment an important consideration.”¹⁰⁵⁶

¹⁰⁵⁴ Brendsel (2000), p. 23.

¹⁰⁵⁵ O'Connor Jr. (1986), p. 21.

Going forward the accounting environment, which has become very fierce to Securitisation due to the failure of Enron, will become more important in structuring and it might also pose problems.

For Credit Tenant Lease Securitisation the accounting of leases and the accounting qualification as operate leases has become the crucial factor.

- **Investor and rating environment** have been crucial to the evolution:

The rating environment has been the key to the success of the overall Asset-Securitisation market. If it was not for the rating criteria and rating issuances on Securitisation transactions, the investor would not have bought it. Over the years rating agencies have put out a lot of rating criteria reports for different property types, for each transaction scheme and special reports on the overall market situation. The evolution of rating criteria was the catalyst that stimulated the growth and development of an institutionalised, national market in CMBS.¹⁰⁵⁷ It led to more uniform mortgage-loan origination, underwriting and property-appraisal standards and thus made the real estate lending and the CMBS market more standardised and resistant against loan underwriting crises as observed in the 1980's. The agencies still play a huge role in each transaction and have a great power over originators and issuers.

Besides rating transactions, rating agencies have also educated investors, which in return has led to a great investor demand. By this investors have become the second crucial environment besides rating. If investors do not buy the issue, then it does not get securitised.

Only with the eventual investor acceptance through the issuances of the Resolution Trust Corporation (RTC) the CMBS market got off the ground. Eventually investors were convinced by the benefits that include:

- Strong yields

¹⁰⁵⁶ Cf. Barnes (2003), p. 19.

¹⁰⁵⁷ The rating environment was not a driver for the evolution of CTL because in a CTL transaction the credit tenant is already rated. Hence, there is no other separate rating needed. Cf. Jacobs (2003), Interview 19, p. 554.

- Credit quality, i.e. opportunity to invest into high quality properties and diversified portfolios (geographic and property type diversification).
- Security of Rating
- Asset-Liability Matching
- Diversification
- Liquidity
- Call protection (as most CMBS are hedged against prepayment)
- Safety through mortgage collateral

Throughout the market development cycle, Investors have influenced the outcome of the structures. Over time, there have been a few structures that did not hit 'investor appetite' or that went out of favour with investors. So, the transaction types and the structures that the CMBS market in the US is left with today have proven to be the most investor-suitable structures, even though they might not be the most sponsor or originator friendly structures.

- The **Real Estate Environment** was the leading driver behind the inception of the market. CMBS evolved and developed under the two credit crunches of the mid-1980's and the early 1990's. The **Cultural and Local Environment** played a minor role.

What were the drivers?

There were a lot of drivers involved in the inception and evolution of the Commercial Mortgage-Backed Securities market in the US:

- The main driver was the Savings & Loans' Crisis in the 1980's, the FIRREA Act and the foundation of the Resolution Trust Corporation (RTC) that led to the first big issuances of CMBS, the broadening of the asset base in Securitisation and the inception of the modern Commercial Mortgage-Backed Security market.
- The Standard & Poor's credit rating system for non-recourse MBS made it possible to rate issues that could not be credit rated before. Before marketing notes privately without ratings was time-consuming and required a massive effort to educate potential investors, even though there was a big safety through mortgage and yield benefits.

- The institution of credit rating systems, the issuance of rating criteria and the credit rating of CMBS issuances by rating agencies lead to investor confidence. This made a broad spectrum of rated and publicly placed offerings possible (from trophy properties in New York City to suburban office buildings).
- The credit crunch resulting out of Savings & Loans/Thrift crisis (mid-1980's). As the number of lenders for large projects became limited and the general financing environment (with fewer lenders) had a negative impact on financing costs, the ability to negotiate favourable terms declined. Moreover, real estate financing in the 1980's was characterised by long negotiation processes leading to high financing costs. The availability of long-term debt financing was restricted and overall financing amounts were low compared to the potential in the capital markets. This lead to a disintermediation of traditional lenders and the shift from credit to capital markets.
- The government wanted to push the market and therefore favoured it by issuing favourable tax laws. The Tax Reform Act of 1986, introducing the Real Estate Mortgage-Conduit for issuing multiple-class Mortgage-Backed Securities was a strong driver. The existence of this a tax-neutral entity became a crucial factor in the development of CMBS in the early 1990's.
- Credit crunch resulting out of the physical real estate down-cycle in the early 1990's restricted private market lending capabilities.
- The existence of the RMBS market and the lessons learned from it. The RMBS market sparked the development of Asset-Securitisation structures. This was fuelled by the strong government involvement in providing affordable home loan financing. It was accomplished by facilitating the secondary real estate market through implicit government guarantees taken on by the three government-sponsored entities (GSE): Fannie Mae, Ginnie Mae and Freddy Mac.
- Structural Innovations instituted by the government-sponsored entities also played a role – Fannie Mae started the secondary mortgage market

and was the first issuer in the Securitisation market and Freddy Mac was the first Conduit and the innovator of the first CMO.

- The innovation of CMOs were a driver for the market, as CMOs allowed distribution of cash flow to be prioritized among various bond classes, instead of distributing the cash flow of the underlying mortgage pools equally among investors (as pass-through securities did). This structure was the ancestor of all other CMBS structures ever to be used in the US.
- Drivers for CTL: the funding problems that corporations were faced with in the 1999/2000 was a driver for CTL Securitisation. As companies slid into a banking credit crunch, they were pressured to monetize their real estate assets.
- Credit Tenant Lease Securitisation from an insurance investor's standpoint is a different asset class than CMBS. It is targeted at a specific investor group. If it was not for the NAIC investment criteria that favours credit tenant loans over pure real estate loans then CTL Securitisation would not be an asset class. So, this was a driver for CTL Securitisation.

Credit Crunch, Banking Crisis & Government involvement were the three main drivers for the US.

What role plays the timing?

Timing plays a huge role in Securitisation and the evolution of the market. Regulatory influence, and the state of the physical and financial cycle had an effect on the timing of the inception of CMBS. The following analysis summarises the physical and financial cycle up- and downturns that influenced CMBS:

1. Early-1980's: strong lending by Thrifts following the de-regulation – Strong capital inflows into real estate (financial cycle upturn)
2. Mid- to late-1980's: Strong over-building in the physical market (physical market downturn)
3. Mid-1980's: Credit Crunch following Thrift Crisis and weak capital inflows (financial cycle downturn)

4. Early-1990's: Physical real estate recession resulting out of an economic recession. (physical cycle downturn)
5. Early-1990's: Weak capital inflows into real estate due to economic recession (financial cycle downturn)

How this relates to the general Banking and CMBS market can be seen in the following chart:

Year	General Banking & Finance Market	Securitisation Market
1980	Savings & Loans deregulation resulting in uncontrolled real estate lending activity.	The MBS market is growing the CMBS market does not exist.
1984	Savings & Loan's Crisis resulting out of the deregulation and leading to a huge Thrift failure and a tough real estate lending environment.	The first CMBS transaction gets structured.
Mid-1980's	Big credit crunch leading to a huge demand in real estate financing and rising interest rates.	CMBS structures evolve – increased activity.
1986	Tax Reform Act and creation of REMIC vehicle.	Strong growth in the overall MBS market.
1989	FIRREA Act and Institution of the RTC.	Growth in CMBS issuance volume.
1989-1994	RTC sells off all non-performing assets out of the banking crisis and satisfies saver's claims.	Strong growth in the CMBS market and broad investor acceptance.
Early 1990's	Economic recession, downturn in the real estate market and credit crunch.	Evolution of Large Loan and Conduit-CMBS replacing much of the traditional private lending market.

Chart 17: Relationship between the general banking and real estate financing market, and the Securitisation market

The evolution of transaction schemes came in specific order:

1. Single-Property/Single Borrower CMBS
2. Credit Tenant Lease Securitisation
3. Large Loan CMBS
4. Conduit CMBS
5. Conduit-Fusion CMBS

The reason why Single Property/Single Borrower CMBS was first was that those were the easiest to do at the time. It needed one willing borrower to take on the fees. Those borrower were seeking financing for big commercial assets that were too expensively priced in the private market. The deals were not standardised, yet. They created the biggest fees for the investment bankers and were still cheaper and more advantageous to borrowers. With one credit tenant, CTL Securitisations were just easier to do. The rationale for large loan CMBS was the same as for Single Property/Single Borrower CMBS.

All in all, CMBS always got a spur at the bottom of the financial cycle that was usually following the trough of physical cycle.

What else played a role in making the market successful?

Before CMBS came along, real estate entrepreneurs who developed, invested and managed real estate were faced with relatively limited financing alternatives. Short-term and intermediate-term financing was provided, for the most part, by banks and other financial institutions. In obtaining long-term funds, the borrower chose between secured debt, which imposed restrictive financial and operating covenants, or relinquishing a portion of equity to a joint venture partner. Before 1983 real estate entrepreneurs had virtually no access to the public securities market, particularly for long-term debt. For the real estate industry as the largest capital user in the economy the evolution of the public real estate financing market created great opportunity for growth. They benefited from numerous choices of non-recourse financings with different structural features, interest rates, payment schedules, maturities and other restrictions.

With CMBS the small and intermediate borrowers benefited from Wall Street firms that integrated the secondary public markets into real estate financing and started the disintermediation of the traditional real estate lender. They became the innovators in the real estate financing markets and were the guarantors for on-going innovation in CMBS.

4-Stage Model for Real Estate Securitisation

From the preceding breakdown of the Asset-Securitisation framework and the analysis of the evolution of Commercial Mortgage-Backed Securities in the US,

the 4-stage model for the Real Estate Securitisation markets introduced in Chapter 4.2.5, can be adapted to the US (Figure 21):¹⁰⁵⁸

Stage 1 (1966-1984): Experimental Stage

- a. New structure development
 - i. First Residential Mortgage Pass-Through Securities (1966)
 - ii. First Collateralized Mortgage-Obligation (1983)
 - iii. First Commercial Mortgage-Backed Security (1984)
- b. Market opening: small market (first CMBS transactions were private, RMBS were public transactions)
- c. Small market volume (i.e. new issuance)
- d. High structural uniqueness – very strong innovative activity
- e. High structural flexibility / unstandardised
- f. High costs / expensive transactions (very high structuring fees)
- g. Very high margins for arrangers
- h. RMBS were rated – CMBS were not yet rated

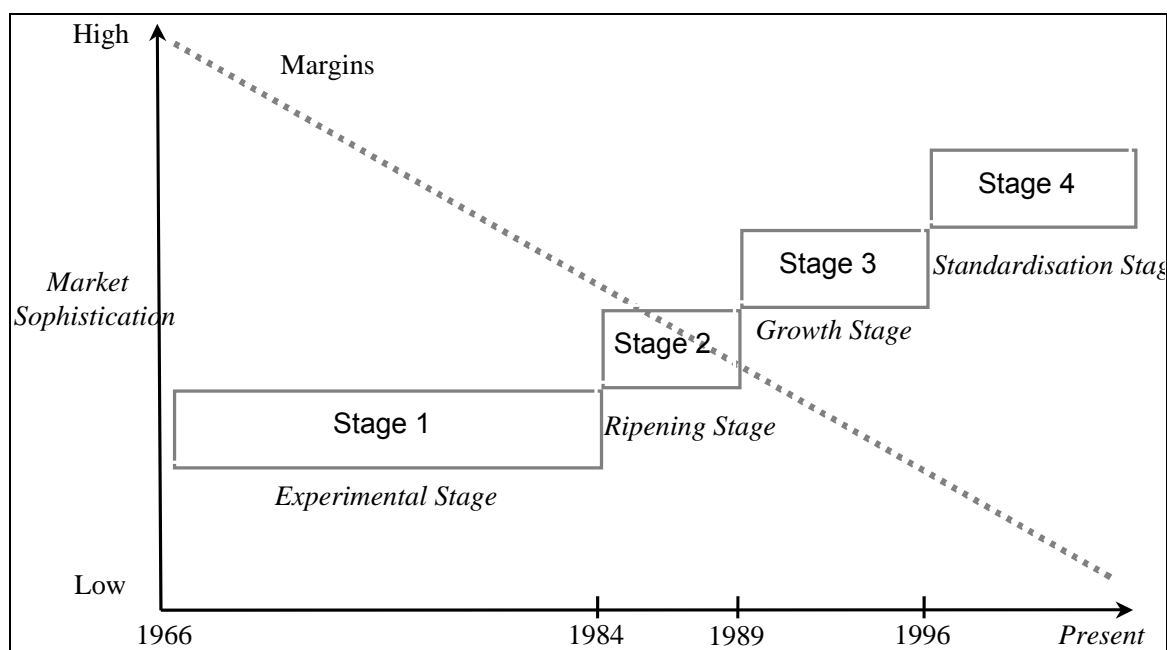


Figure 21: 4-Stage Evolution Model for Real Estate Securitisation Markets – applied to the case of the United States

- Stage 2 (1984-1989): Ripening Stage
 - a. Structure ripening/enhancement
 - i. Commercial Property CMO

¹⁰⁵⁸ Cf. Chapter 4.2.5.

- ii. Single Credit Tenant Lease Securitisation
 - iii. Multi-Tenant CMBS
 - b. Market broadening (increasing number of transactions)
 - c. Growing market volume (i.e. new issuance volume is rising)
 - d. Still relatively high structural uniqueness, but decreasing – innovative activity still strong
 - e. Relatively high structural flexibility
 - f. Costs are less, but still high
 - g. Still high margins for arrangers, but decreasing
 - h. Transactions are increasingly getting rated
- Stage 3 (1989-1996): Growth Stage
 - a. Structure evolution
 - i. Standard is set by Resolution Trust Corporation
 - ii. Large Loan CMBS
 - iii. Conduit-CMBS
 - b. Strong market growth (through RTC more public transactions)
 - c. Relatively large market volume (a lot of new issuance through RTC and Conduits)
 - d. International recognition (increasing international appetite for CMBS)
 - e. Strongly decreasing structural uniqueness – standardisation in underwriting
 - f. Structural flexibility is declining rapidly – increasing standardisation
 - g. Costs decrease as execution gets more efficient and investor base more educated
 - h. Lowering Margins for arrangers
 - i. Transactions are all rated (except for most CTL – that are implicitly rated)
 - Stage 4 (1996-present): Standardisation Stage
 - a. Structure standardisation (CMBS-Conduit and CMBS-Fusion reign the market – all transactions are the same)
 - b. Matured market
 - c. Large market volume (Portfolios are big and granular)

- d. Global product – global investors
- e. No innovative activity – bulk transactions
- f. No structural flexibility – total standardisation / high covenants for borrowers/originators
- g. Costs are really low –
- h. Low margins for arrangers
- i. All transactions are rated

The analysis about the US is also validating the 4-stage model set up in the Singapore analysis in Chapter 4.3.5.

4.4 Europe

4.4.1 Literature Review

Academic literature on Asset-Backed Securitisation exists in Europe. However, there is hardly any academic literature on European CMBS – except for some chapters in US textbooks. There have been no studies on the evolution of the European Asset-Securitisation and Real Estate Securitisation market. Generally, Asset-Securitisation research (incl. CMBS and Real Estate Securitisation) in Europe is very much industry dominated:

1. Rating Agency – Publications include:
 - a. Country-specific Rating Criteria
 - b. Asset-specific Rating Criteria
 - c. Market Reports (Year in Review, Quarter in Review)
 - d. Special Reports
2. Securitisation Research Departments within Investment Banks – Publications include:
 - a. Weekly Market Updates/Reports
 - b. Sub-Asset Class Reports (RMBS, CMBS, CDO, ABS, WBS)
 - c. Transaction Performance Updates
 - d. Special Reports
3. Periodical Industry Research (Magazines):
 - a. Euroweek
 - b. Euromoney
 - c. Asset Securitisation Report
 - d. International Financing Review
 - e. Structured Finance International
 - f. International Securitisation Report
 - g. International Financial Law Review

- h. Asset Sales Report International
 - i. Asset Finance International
4. Other Industry Research:
- a. Securitisation and Structured Finance Guide
 - b. Global Structured Finance Guide

Most of those literature sources will be used in this chapter in addition to the scarce academic European CMBS literature for analysing the European Real Estate and Commercial Mortgage-Backed Securitisation market.

4.4.2 Market Overview

4.4.2.1 Definitions and Terminology

Real Estate Securitisation vs. CMBS

As in the US, Real Estate Securitisation in Europe is primarily categorized under CMBS. The reason why it is called CMBS results out of the history and the evolution of Asset-Securitisation transactions backed by commercial property. In Europe, however, both categories overlap strongly. So, terms will be used interchangeably in this chapter.

True-Sale vs. Synthetic¹⁰⁵⁹

In a standard 'True-sale' Securitisation transaction, a pool of assets is transferred by its owner to a special purpose entity, which in turn issues arising from the transferred assets. The transaction may have different purposes including: to remove the assets from the transferor's balance sheet, to obtain financing at a price otherwise unavailable to the transferor or to obtain capital or other regulatory relief.

A Synthetic Securitisation, on the other hand, provides for at least part of the economic substance of a standard Securitisation transaction, but without the actual transference of any assets. Generally, the owner of the assets (the 'Protection Buyer') transfers the portfolio of assets (a 'Reference Portfolio' of 'Reference Obligations') to another entity (the 'Protection Seller') or directly to

¹⁰⁵⁹ Cf. Uwaifo and Greenberg (2001), p. 139.

the Capital markets. Although the credit risk of the Reference Portfolio is transferred, actual ownership of the Reference Obligations remains with the Protection Buyer, so it is not a true Securitisation but a synthetic one.

Originator vs. Sponsor

In Europe the Originator is the seller of the asset. The sponsor is only the company that holds a conduit into the capital markets (usually investment banks) and that puts together a European Conduit CMBS transaction.

Originators can be banks (for loan assets) or corporates (for corporate assets – receivables, real estate) or governments (for government assets – future receivables, government employee housing).

European Conduit vs. US Conduit CMBS¹⁰⁶⁰

In Europe, the Morgan Stanley European Loan Conduit Deals have led the way for the development of European Conduit CMBS. This type of Conduit has developed differently than in the US. Even though the term is the same, the transactions differ. Although, both types of transaction schemes represent a conduit for borrowers into the capital markets, European Conduit CMBS do not exactly fit the definition of Conduit-CMBS by US standards (100 loans at \$4-6 million a piece), because they securitise large loans and sometimes even single borrower loans.

True Sale vs. Secured Loan Structures¹⁰⁶¹

An innovation in the European Asset-Securitisation market has been the creation of 'secured loan' structures. In contrast to the traditional 'true sale' Securitisation structures, under a secured loan structure, not the asset is sold to an SPV but the SPV grants a loan to the asset originator (typically via the purchase of a loan note). The repayment of the loan, however, is secured by the cash flow from the relevant assets. So in the case of real estate, as opposed to traditional true sale CMBS in which the asset is a mortgage loan, under a secured loan transaction structure essentially the cash flows from the property and its operations are structured into a secured loan and are

¹⁰⁶⁰ Cf. Corcoran (2003), Interview 12, p. 554.

subsequently securitised. From a bankruptcy standpoint, the rating agencies will generally assume insolvency of the originator in their stress scenarios. Doing that they must gain comfort that such an event will not result in any cash flow timing delay and loss to the transaction. In Europe, a secured loan structure may even be stronger than a true sale structure.

4.4.2.2 Evolution and State of the Market

1. Overall European Asset-Securitisation Market

Following the United States, Europe is the world's second largest and second highly developed Securitisation market. Although a form of Securitisation had been in existence in the German and Danish mortgage markets for a long time, Asset-Securitisation in the modern sense only emerged in Europe in the mid 1980s. The history of Securitisation in Europe goes back to 1985 and the creation of a Mortgage-Backed Securities market in the UK. At the time, the US investment banking firm Salomon Brothers saw several forces come together that indicated that Europe and especially the United Kingdom were “ripe for Securitisation”¹⁰⁶². Residential mortgages became the first asset class within Asset-Securitisation in Europe and have also remained the driving force behind the market ever since. Today Residential Mortgage-Backed Securities – with a market share of over 50% – are still the most dominant asset class by far.¹⁰⁶³

The driving forces for the evolution of the European Asset-Securitisation market were:¹⁰⁶⁴

- **Borrower/Originator/Issuer Demand** – in anticipation of Basel I banks were under pressure to better manage their balance sheets and their liquidity. Asset-Securitisation in the US had proven to be an adequate mechanism for that.

¹⁰⁶¹ Cf. Taylor (1996), p. 29.

¹⁰⁶² Myerberg (2000), p. 139.

¹⁰⁶³ Cf. Taylor (1996), p. 22.

¹⁰⁶⁴ Cf. Hayre and Thompson Jr. (2001), p. 735.

- **Investor Demand** – there was an ample supply of funds and investors, which was a prerequisite for such a market to start. In the US, Mortgage-Backed Securities had proved to be high-quality assets offering very attractive returns at a relatively low level of risk. There was potential for such investors in Europe.
- **Profit Potential** – for Investment Banks to engage as intermediaries between borrowers and the capital markets there needed to be an adequate premium for introducing and structuring such instruments. The profit potential arose out of a potential arbitrage between credit and capital markets.

So, Salomon Brothers, the company that was also the innovator for Asset-Securitisation and Commercial Mortgage-Backed Securities in the US, recognized this opportunity in European Asset-Securitisation and ventured overseas.

From the whole of Europe, the UK provided Salomon with the biggest opportunity to cash in on the development expenses that had gone into the creation of the mortgage securities market in the US. For the firm the UK market offered the right environment and framework to first introduce Securitisation to Europe. And it displayed a chance to ride the synergies from the operations in the US:¹⁰⁶⁵

- The **UK mortgage market had a crucial size** and was big enough to create economies of scale – at the time the size of the mortgage market was \$400 billion.
- The **legal system in the UK** – as in the US – was based on common law as opposed to civil law prevalent on the European continent.
- **No enabling legislation was required** for Securitisation – many of the techniques developed in the US market could be exported.
- The Thatcher government strongly advocated home ownership, privatisation programs and deregulation – thereby **increasing**

¹⁰⁶⁵ Cf. Myerberg (2000), p. 140.

disintermediation of traditional lenders and pushing new capital markets instruments. This led to funds flowing directly from savers to capital market investments without passing through intermediaries, like Mortgage-Backed Securities.

- Finally, there were **no language barriers** for investment bankers – the language in the UK as in the US is English.

From the investor and capital market side there was also a great demand for such a product as the following conditions were prevailing:¹⁰⁶⁶

- There was **no adverse government regulation** – the government was even welcoming a new development.
- There was a **strong investor appetite for capital markets debt** (Sterling floating-rate notes) – even though all transactions in the market at the time were unrated and unsecured. However, the supply was limited, which created a supply vacuum to be filled at times of rising demand. So, the investor environment for introducing a new Asset-Securitisation product to the market was favourable.
- There were **no government-sponsored entities** (like Fannie Mae or Freddie Mac) in the UK, so the Mortgage-Backed Securities concept was driven by market forces. As a consequence there were no common standards developed by one institution. It had to be established by the market innovators.

This all created a very attractive climate for the introduction of Securitisation in the United Kingdom. For the investment banks, the basics for the creation of the market could be put in place fairly quickly.

Following the evolution path of the US, the first asset class to be securitised became residential mortgage loans. Salomon Brothers set up a company called 'The Mortgage Corporation', which essentially became a private mortgage banking company and Salomon's conduit into the capital markets. The company functioned as a primary mortgage lender for home buyers and

¹⁰⁶⁶ Cf. Myerberg (2000), p. 142.

a funding institution for those loans through the issuance of Mortgage-Backed Securities. As there were no common underwriting standards for Securitisation and traditional loans did not qualify for Securitisation, new standards had to be set up by the Mortgage Corporation. Setting standards and structuring the first transaction was not easy, as the market was not 100% congruent with the US market.¹⁰⁶⁷ However, the problems were solved and the first deal was offered in **February 1987, which can be set as the inception date of the European Asset-Securitisation market.**¹⁰⁶⁸

By 1990, over €10 billion of floating-rate Mortgage-Backed Securities (MBS) transactions had been issued, which was a successful and very promising launch for the new instrument. However, as financial market history indicates, financial innovations do not always grow in a straight upward direction – there are failures and learning experiences that make a market mature. The same happened in the UK. As a consequence of the 1987 stock crash in the US small depositors over the period of 3 years brought their money back to traditional lending institutions in the UK (building societies). Those building societies engaged into strong competition with the new capital market lenders and drastically lowered their rates. Then, the UK economy turned and rates rose dramatically, so that by 1992 delinquencies for certain lenders reached up to 20%. Mortgage insurers suffered large losses and stopped enhancing Securitisation transactions. Hence, the primary credit enhancement mechanism fell out. As a consequence, the new issuance in Mortgage-Backed Securities declined. To overcome this fall out and the resulting decline, bankers introduced subordination structures (similar to US CMO structures) that tranching issues into different security classes with different risk-return profiles. Investor acceptance was good and the MBS market started to revive. During the following years Asset-Securitisation spread over continental Europe and new asset classes apart from first and second mortgages were created; new asset classes included

¹⁰⁶⁷ First of all, all loans were floating rate loans. Secondly, without Freddy Mac and Fannie Mae, there was no agency guaranteeing the interest and principal on the notes. So credit enhancement from third-party guarantors with the capital status to validate the desired rating had to be found. Cf. Myerberg (2000), p. 143.

¹⁰⁶⁸ Cf. Davidson, *et al.* (2003), p. 453.

commercial property leases, auto loans, consumer loans, trade receivables and bank loans. As a result by 1996, total issuances in the UK had reached €20 billion in 79 issues covering all asset classes. The Mortgage Corporation stayed the strongest issuer with €4.5 billion (16 issues). In the following time, the market became even more innovative and developed a multitude of new asset classes.¹⁰⁶⁹

“One can expect virtually anything that has cash flow to be a candidate for Securitisation.”¹⁰⁷⁰

Even though the evolution of the European Securitisation market and especially the Mortgage-Backed Securities market was initiated from the United States, the development in Europe significantly lagged that of the US. In the UK, the growth drivers might have been the similar to the US, but MBS in continental Europe had different drivers. The residential real estate lending environment in Europe was fundamentally different and diverse.¹⁰⁷¹

- I. There was a lack of a large powerful body to provide for homogenization and standards. There were **no special government-sponsored agency** programs to promote mortgage financing like Fannie Mae or Freddy Mac in the US.
- II. There was a **lack of active specialized housing finance companies**.
- III. A number of European countries (Austria, Finland, Germany, Holland, Scandinavia, Spain, and Switzerland, France and Ireland) had well-developed, **large domestic Mortgage-Backed/Covered Bond markets** that had existed for decades. Mortgage-Backed Bonds are secured against a mortgage portfolio and are an obligation of the issuing bank.¹⁰⁷²

¹⁰⁶⁹ Cf. Myerberg (2000), p. 144.

¹⁰⁷⁰ Myerberg (2000), p. 146.

¹⁰⁷¹ Cf. Batchvarov, *et al.* (2001), p. 760; Davidson, *et al.* (2003), p. 448.

¹⁰⁷² In some countries, the investor may have only a claim against the issuing institution, whereas in others the investor may enjoy a special conditional claim over a specific portfolio of underlying mortgages. Cf. Batchvarov, *et al.* (2001), p. 760.

IV. The **differing legal frameworks** in each European government provide a very different setting for Mortgage-Backed Securitisation in Europe than in the United States.

V. **Prepayment risk**, a driving factor in the US, was almost entirely absent in European market.

However, in the early 1990s the continental European MBS market started to find some support from Spain and France. France endorsed Securitisation in the late 1980s, but laws on Special Purpose Companies were not clear, and thus the market was slow until the 1990's. Spain enacted a law in 1991 allowing for the issuance of MBS. The new law allowed for the creation of unique Securitisation vehicles that were compatible with Spanish domestic legal structures. Despite moderate MBS issuances out of these countries and irregular issues from originators in certain other European countries (notably Sweden), there was generally not a strong consensus for Residential Mortgage-Backed Loan Securitisation in continental Europe for much of the early 1990s. This changed toward the mid-1990s as new players from Belgium and the Netherlands entered the MBS market. In the subsequent years also countries as Italy, the Netherlands, Luxembourg and Germany issued regulatory guidelines, and thus enabled the start for Asset-Securitisation.¹⁰⁷³

As Asset-Securitisation became a valid and more mature capital markets instrument, it spread over to continental Europe – primarily in the form of Mortgage-Backed Securities. The United Kingdom formed the early stronghold of European Asset-Securitisation (especially MBS) and is still the strongest Securitisation country in Europe.¹⁰⁷⁴

Even though, Europe was able to make use of the US knowledge base, participants had to alter it to fit specific European needs. This resulted in the following market characteristics:¹⁰⁷⁵

¹⁰⁷³ Cf. Batchvarov, *et al.* (2001), p. 761.

¹⁰⁷⁴ Cf. Batchvarov, *et al.* (2001), p. 758.

¹⁰⁷⁵ Cf. Davidson, *et al.* (2003), p. 448.

- The European Market does not have a pass-through type MBS structure.
- MBS from different countries, and even from different issuers within one country, can be very dissimilar, which makes it difficult to provide benchmarking for investors.
- There is a huge lack of statistics on underlying assets, making it necessary to do significant due diligence on each and every MBS or ABS transaction.

Overall, the development of Asset-Securitisation in Europe was hazardous. There were lots of other obstacles besides the existence of Mortgage-Backed/Covered Bond markets restricting the evolution of European Asset-Securitisation:¹⁰⁷⁶

- **Different legal systems** (Common law, Napoleonic law, Germanic law) resided in Europe. There was no standardisation of applicable laws.
- There were **no uniform underwriting guidelines**.
- There were **no databases with historic performance** statistics.
- There was **no uniform currency** (which has vanished with the introduction of the Euro).
- In most cases **government support was little** and government-sponsored entities like Freddie Mac and Fannie Mae that could set standards and enhance credit in the market were non-existent.
- **Political risk** for capital market innovators was large and legal changes had to precede any market action.
- The **markets in Europe were very small and fragmented**, as compared to the US. Country specific development resulted in smaller and less liquid markets.

¹⁰⁷⁶ Cf. Taylor (1996), p. 23.

- **Large legal fees** at start-up. Without sizeable volume they were prohibitive.
- Other **up-front costs** (for e.g. computer networks, research) were too high for small deals in small markets.
- The standardised US **technology and setup** did not work for all markets.

Nevertheless, the growth of Asset-Securitisation in Europe was inevitable, as it is a free market concept. In Europe, the concept took longer to develop than in the US. A very important, but non-quantifiable hindrance to the development of the European Asset-Securitisation market was the historic suspicion of new financing techniques. There were two major factors behind that:¹⁰⁷⁷

- I. The banking industry had been highly regulated and protected within Europe, which resulted in an oligopolistic banking sector within most countries and a captive investor community.
- II. For a long time European banks were not under pressure to achieve high returns on equity.

As the market developed, both of these factors changed. The European Union regulations allowed banks to provide services in the other EU countries, and hence the banking sector became increasingly competitive. As the concept of 'Shareholder Value' was developed and as the general public increasingly participated in the capital markets the pressure for banks to manage their bottom line increased. This provided a strong incentive for banks to move forward and participate in Asset-Securitisation to manage their balance sheets.

Hence, the forces that eventually favoured the evolution of the overall European Asset-Securitisation were similar to the ones in Singapore and the United States:¹⁰⁷⁸

¹⁰⁷⁷ Cf. Davidson, *et al.* (2003), p. 448.

¹⁰⁷⁸ Cf. Myerberg (2000), p. 152.

- I. **A common currency** (the EURO) and a **pan-European capital market**.
- II. **Financial Crisis** – a shortage of money to fund investments and operations resulting out of a restrictive traditional lending environment (i.e. credit crunch).
- III. **Government support** – resulting out of the need to safeguard the banking system.¹⁰⁷⁹

With these developments and growing investor demand for those products the prospects for Asset-Securitisation in Europe rose and have led to what the market is today.

Since 1996 the market has been on a steady growth path. The last eight years have witnessed the overall European market's continued expansion into new asset classes and an increased acceptance of Securitisation as an established financing technique by financial institutions and corporates throughout Europe.¹⁰⁸⁰

These transactions have pointed to a strong growing market that is likely to be marked by a dynamic mix of asset classes and increasingly innovative structures for years to come. Steadily increasing numbers of European investors and originators are embracing Securitisation. This is evidenced by the growth in traditional asset classes and structures, and by the level of investor interest seen in more and more innovative transactions.¹⁰⁸¹

Investors' appetite for structured bonds in general has been evidenced by their willingness to buy securities backed by an ever-broadening range of assets, which shows an increasing comfort with the Securitisation process. The investment base is becoming more sophisticated, and investors are increasingly looking for performance data on transactions – one sign of active investor involvement and interest.¹⁰⁸²

¹⁰⁷⁹ This has been the experience in the US with the Savings & Loan's crisis.

¹⁰⁸⁰ Cf. Davidson, *et al.* (2003), p. 449.

¹⁰⁸¹ Cf. Herrmann (2001), p. 1; Rajendra, *et al.* (2003), p. 234.

¹⁰⁸² Cf. Sampson (2001), p. 15.

Globally, as the US Securitisation market continues to mature, it is the European market that is increasingly the main focus for growth across a number of jurisdictions and asset classes. Due to the number of jurisdictions, the pan-European market is one of the most complex as, whilst there are proposals to harmonise European legal, accounting and regulatory guidance to produce a pan-European framework, at present the implications for Securitisation in Europe are many and varied and also subject to considerable change and evolution.¹⁰⁸³

The graph below (Figure 22) shows the development of the overall European Asset-Securitisation market since its inception. The market has risen from €3 billion in 1988 to €209.9 billion at year-end 2003 and is set to exceed the '2003 Issuance' in 2004. The enormous growth of the market during the last eight years can be attributed to mainly four things:¹⁰⁸⁴

- I. The amendment of the legal and regulatory framework.
- II. The introduction of the Euro.
- III. The growing acceptance in the corporate and the banking market.
- IV. The transparency of the market that has been pushed forward by the rating agencies.

The only year where growth slowed down was 2002. Whilst European Securitisation issuance set another record in 2002, the total new issuance volume in 2002 was only slightly over 2001's issuance. The slowdown in the rate of growth could be attributed to investors sentiment in the aftermath of the World Trade Center bombings, general concerns regarding corporate creditworthiness and an increase in the number of Securitisation downgrades. Apart from that the rising volume of Synthetic Securitisations had an ongoing effect on new issuances in Asset-Securitisations, as the biggest part in Synthetic Securitisations is covered by credit default swaps,

¹⁰⁸³ Cf. Clifford Chance European Securitisation Group (2001), p. 36.

¹⁰⁸⁴ Cf. Clifford Chance European Securitisation Group (2001), p. 36; Collingridge, *et al.* (2003), p. 243; Herrmann (2001), p. 1; Rajendra, *et al.* (2003), p. 234; Sampson (2001), p. 15.

only a small part is actually funded by ABS notes.¹⁰⁸⁵ Nevertheless, the continued resilience of the European Securitisation market demonstrates that Asset-Backed Securities have become a financing technique that will grow and innovate even during years when there is a downturn in the capital markets.¹⁰⁸⁶

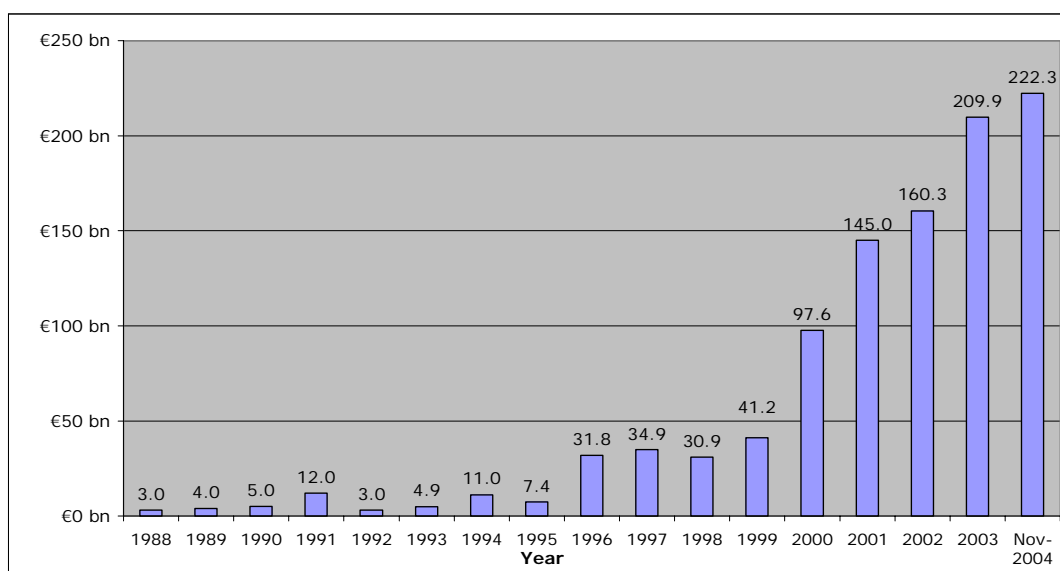


Figure 22: European ABS Issuance (1988 – 2004)

Source: Authors Compilation¹⁰⁸⁷

After a slower year in 2002, the overall Asset-Securitisation market has strongly grown in 2003 and 2004.¹⁰⁸⁸ Unimpressed by this growth market participants expect another record year, with slower growth rates, though. A lot of expectations lie on Germany, with the True Sale Initiative coming to terms.¹⁰⁸⁹

In Europe, today there exist five major – rating agency recognized – asset classes:¹⁰⁹⁰

1. Residential Mortgage-Backed Securities (RMBS)

¹⁰⁸⁵ For more information on structuring synthetic Securitisations confer Uwaifo and Greenberg (2001), p. 139.

¹⁰⁸⁶ Cf. Weiffenbach and Ghali (2003), p. 247.

¹⁰⁸⁷ Source: Authors Compilation based on the following sources: Davidson, *et al.* (2003), p. 449; Hayre and Thompson Jr. (2001), p. 742; Rajendra, *et al.* (2004a), p. 4; Rajendra, *et al.* (2004c), p. 1; Rajendra, *et al.* (2002), p. 5.

¹⁰⁸⁸ Cf. Seymour (2004b), p. 2.

¹⁰⁸⁹ Cf. Weber (2004), p. 3.

¹⁰⁹⁰ Cf. Seymour (2004a), p. 1.

2. Commercial Mortgage-Backed Securities (CMBS)
3. Collateralized Debt Obligations (CDO)
4. Asset-Backed Securities i.n.S. (ABS i.n.S.)
5. Whole Business Securitisations (WBS)

Whole Business Securitisation is the youngest innovation in asset classes and is pretty much unique to the UK and France. Instead of focusing on cash flows from a single identifiable asset, the entire set of flows generated by a business on a going concern basis is used. The technique used is a variation of the secured loan concept. The principle idea is to isolate the cash-flow-producing assets from the originator/borrower, so that the control of the asset can be given to the trustee/receiver, in case of default. If bankruptcy occurs the trustee may manage and operate the business for the realization of cash flows over time. This technique has come to be a popular source of funding for corporates with strong operations backed by real estate. However, it is only suitable for certain types of businesses that demonstrate very stable cash flows. The evolution of Whole Business Securitisation was driven by favourable legal circumstances in Great Britain. So that, the first Real Estate Securitisation deals in the UK were Real Estate-Backed Whole Business Securitisations or Operating Company deals. Even though those Securitisations will be unique in their way and most of them will probably not be repeated, the European Securitisation market will keep on growing into different directions.¹⁰⁹¹

2. European Real Estate/Commercial Mortgage-Backed Securitisation Market

Mirroring the inception of the overall Asset-Securitisation market in Europe, the Real Estate Securitisation market also got started in the United Kingdom, as it provided the most favourable commercial property and the least restricted Securitisation framework.

¹⁰⁹¹ Cf. Dorendorf (2004), p. 21.

Similar to the 1991-1992 North American recession, the UK recession had a severe impact on commercial real estate. After the deep recession in the early 1990's, the United Kingdom, has experienced stable economic conditions. Price inflation and economic growth have been relatively stable, in the 2 % to 4% range, while the base lending rate has been in the low 5% to 7% range. This stable growth and negligible inflation environment combined with limited real estate construction has created a very strong commercial real estate market that was the basis of a functioning Real Estate Securitisation market and thus favoured the evolution of CMBS in Europe.¹⁰⁹²

But beyond economic conditions, the primary reasons for this evolution path was that the established British legal system, which was very similar to the US system and provided for strong mortgage security and bankruptcy remote Special Purpose Vehicles. This was underlined by the success of the Residential Mortgage-Backed Securities market. The experience with RMBS gave investors faith in bonds backed by secured UK commercial real estate assets.¹⁰⁹³

The strength of the UK legal system derives out of the circumstance that in a default, the appointment of a receiver cannot be blocked. This standard default mechanism helps to not delay the realisation of the secured creditors' collateral in the case of the borrower filing for bankruptcy protection, as it is the case in the US.¹⁰⁹⁴

Moreover, the UK real estate market has been established as one of the most landlord-friendly leasing markets in the world. Commercial leases have a contractual term of 15 or 25 years and provide the landlord with 'five-year, upward only rent reviews'. This means that the rent is raised to the greater of market or the previous rental rate every five years. Additionally, commercial leases are usually 'fully repairing and insuring' leases. This relates to the tenant's responsibilities of paying the cost of fully maintaining

¹⁰⁹² Cf. Wheeler (2001a), p. 757.

¹⁰⁹³ Cf. Wheeler (2001a), p. 757.

¹⁰⁹⁴ Cf. Wheeler (2001a), p. 757.

and insuring the property, in addition to the operating cost and taxes.¹⁰⁹⁵ The tenant's requirement to maintain, repair, and insure the property removes most of the capital expenditure cost from the landlord. Above that, the tenant is also responsible for returning the space to a base building standard at lease termination. As a consequence it is more likely that tenants renew their lease, when it expires because if they have made substantial improvement investments those are 'sunk build-out costs' for them.¹⁰⁹⁶

This leads to very stable, secure and bondable rent cash flows. The commercial property sector in the UK was made for Real Estate Securitisation. So, the favourable factors led to a rapid expansion of the Securitisation of UK commercial real estate as will be delineated in the following part.

Apart from Bank originated Portfolio-CMBS there are three types of 'true sale' transaction schemes that can be identified.¹⁰⁹⁷ Those types originated in the UK in the following sequence:

1. Real Estate-Backed Whole Business / Operating Company transactions¹⁰⁹⁸

The first Real Estate Securitisation transaction came about in 1994. Operating Company Securitisations¹⁰⁹⁹ were the first form of Asset-Securitisation to use commercial real estate to support bonds. Citibank was the innovator in the early transactions. In those cases the Securitisation structure was used to finance two different nursing home pools in 1994 (Sonar 1) and 1995 (Sonar 2). The

¹⁰⁹⁵ By being fully repairing and insuring the UK leases cover more than typical North American triple-net leases.

¹⁰⁹⁶ Cf. Wheeler (2001a), p. 758.

¹⁰⁹⁷ Bank originated Portfolio-CMBS only came into being after the inception of the other three transaction schemes: Real Estate Backed WBS, Conduit CMBS and Single Asset/Property – Single Borrower transactions. It really took until 1999 for the first Bank originated Portfolio-CMBS to come out. Cf. Chart 18: List of European CMBS Transactions (1996-1999), p. 388.

¹⁰⁹⁸ Cf. Wheeler (2001a), p. 761.

¹⁰⁹⁹ In the beginning of the market those transactions were called Operating Company transactions. As the market matured the term developed itself into Whole Business/Company Securitisations (WBS). Transactions that are backed by the strength of the operating company

reason for operating companies being early adopters of the Real Estate Securitisation/CMBS concept was that their corporate cost of debt was usually higher than traditional mortgage finance rates. So, nursing home operators used the CMBS market to access the mortgage finance market through sale-leaseback deals that were secured by a mortgage and the cash flows from nursing home operations.

Since 1994, there have been different sorts of operating company CMBS. Pub companies for example have also utilized the CMBS type structure to finance large pub portfolios. The pub operating companies receive rental income from owned pubs leased to smaller local operators on 10 to 20 year lease terms. In addition, those companies also supply the beer. The typical transaction structure for Pub transactions is a secured loan structure: the operating company gets granted a secured loan from the issuing SPV rather than a true sale of the assets to the issuer.¹¹⁰⁰ Hence, the financing is also based on the operating company's revenues, as well as the underlying property's rental revenues. Under the British legal system, this structure additionally enabled the issuer to gain control of the company and the related real estate assets relatively quickly in the case of loan default. So, this made this segment develop so quickly in the UK.

From 1996 on, a multitude of deals was done including the Real Estate-Backed Whole Business Securitisation of Madam Tussaud's Museum, the London City Airport and private hospitals. Above that the United Kingdom saw the secured-loan structure spread into a segment that did not necessarily incorporate real estate: e.g.

as well as by real estate are now called Real Estate-Backed Whole Business Securitisations. Most of the time WBS transactions are summarized under the ABS asset class.

¹¹⁰⁰ The Operating Company/WBS transactions only function under a secured loan structure. The true sale of assets would be very hazardous. In this respect only the very favourable legal framework in the UK has proven to be feasible for Operating Company/WBS deals in Europe.

Nomura's 'Angel Train Securitisation' or 'Isle of Wight ferries' – a ferry operator.¹¹⁰¹

2. Multi-borrower (European) Conduit transactions¹¹⁰²

Following the Operating company transactions came the Multi-Borrower Conduit transactions. Those tried to replicate the US style Conduit-CMBS that were developing in the US at the time.¹¹⁰³ In the beginning several issuers attempted multi-borrower CMBS but the success was limited. The earliest issues were done in 1995 and 1996. Until 1999 there were only 8 Conduit CMBS issuances totalling €1.9 billion.

The environment at the time was not favourable for such transactions. Many institutions believed that Conduit CMBS pools were not economically feasible, given the tight mortgage spreads and the wide CMBS issuance spreads. The tight mortgage spreads were blamed on European banks that had liberal capital allocation rules for commercial mortgages. But, as this factor disappeared with the increasing alignment of European Union banking legislation, continuing banking consolidation and the Basel Capital Accord, the transaction became more favourable at the end of the 1990's. So investment banks started set up continuously issuing European Conduits – the biggest ones include programs at Morgan Stanley, Lehman Brothers, and Deutsche Bank, but there are at least another seven institutional firms committing resources to building their own CMBS platforms for recurring issuance.¹¹⁰⁴

¹¹⁰¹ Cf. Davidson, *et al.* (2003), p. 459.

¹¹⁰² Cf. Wheeler (2001a), p. 763.

¹¹⁰³ Part of the reason why those transactions are called European Conduit CMBS and not just Conduit-CMBS is that this transaction scheme has developed itself differently from the US CMBS-Conduit. Instead of originating small commercial mortgage loans those conduits have started to accumulate and securitise large commercial mortgage loans. Hence, European Conduits have been adapted to the specific needs of the respective region.

¹¹⁰⁴ Cf. Hunt (2004), p. 2.

Until 2004 there have 31 Multi-Borrower European Conduit CMBS transactions (totalling €15.9 billion) been executed in the European Market.¹¹⁰⁵

3. Single Asset/Property – Single Borrower transactions

In total, the issuances of Operating Company/RE WBS and Multi-Borrower CMBS compared to the total amount of Asset-Backed Securitisation issuances was very small and the issues were rather sporadic. Moreover, since there was a limited number of operating companies and Conduit transaction that did not turn out to do well, the focus of the UK market for public real estate financing shifted to single asset/single borrower transactions with great collateral or good credit.¹¹⁰⁶

On 06 November 1996, **Annington Finance No. 1** became the first big Single Borrower CMBS issuance in Europe. Annington Property Limited (APL) purchased 57,443 residential properties from the Secretary of State for Defence. The units made up the majority of the Armed Forces Married Quarters Estate in England and Wales. The majority of properties (approx. 55,000) was subsequently leased back to the Ministry of Defence. The issued fixed rate notes and bonds were backed by this secured rental stream from leases entered into between APL and the Secretary of State for Defence of the United Kingdom. So, in essence this was a true Real Estate Securitisation on the basis of a Credit Tenant Lease Securitisation transaction scheme.¹¹⁰⁷

The structure of this transaction became the role model for most of the subsequent Single Asset/Single Borrower transactions. Payment of the issued securities was supported by the repayments of principal and interest due under a loan made by the issuer (Annington Finance No.1) to Annington Property Limited (APL). The

¹¹⁰⁵ Cf. List of European CMBS transactions (1996-2004), Chart 18 - Chart 21, pp. 388-391.

¹¹⁰⁶ Cf. Wheeler (2001a), p. 765.

loan proceeds were used by APL to purchase the Married Quarters Estate, comprising residential housing for service personnel. The Secretary of State leased back a portion of the estate for continued use by the Ministry of Defence. Under the arrangements, the Secretary of State guaranteed the payments. The high investment grade ratings (AAA) were based on the UK government's credit, the likelihood of the obligation being paid back, and the legal structure of the transaction.¹¹⁰⁸

So, the Single Asset/Single Borrower segment started only in 1996 with one transaction and in 1997 there were already 8 transactions (including big ones Mooncrest Funding, La Defense, Canary Wharf and Annington Finance No.4) totalling €6.7 billion.¹¹⁰⁹

These first transactions were based almost entirely on the credit rating of a single tenant or entity (similar to the US Credit Tenant Lease Securitisation concept). The reason, why single asset deals became a success was that, in late 1996/early 1997, single-asset CMBS issues achieved significant financing cost advantages versus traditional mortgage lending rates. Single-asset transactions have been favourable in those cases when the underlying assets were too large for anyone lender to finance, leaving the CMBS market as the most efficient method of financing. The transactions have all been backed by strong investment grade credit or trophy assets and prime real estate, which real estate lenders view as stable and safe

¹¹⁰⁷ Cf. Moody's Investor Service (1996), p. 1; Mortimer and Corpet (2004a), p. 1.

¹¹⁰⁸ Further funds were raised by Aninngton Finance No. 4 in December 1997, February 2002, and July 2004. The same properties as in Annington Finance No. 1 were used for those issuances. The bonds were backed by (i) Ministry of Defence rents in excess of the guaranteed payments, (ii) disposal proceeds from the sale of properties released and (iii) the property value of the residual estate. Cf. Drevon (1997), p. 1; Lindstrom and Breda (2002), p. 2; Mortimer (2004), p. 1; Mortimer and Corpet (2004b), p. 1.

¹¹⁰⁹ Cf. Chart 18: List of European CMBS Transactions (1996-1999), p. 388.

investments (e.g. Canary Wharf I/II in 1997/2000¹¹¹⁰ and Broadgate in 1999¹¹¹¹).¹¹¹²

With the successful placement of Trafford Centre in 2000, the UK CMBS market moved into a new dimension. It had evolved from investing in the underlying tenants' credit rating to relying on the underlying commercial property value.¹¹¹³

Today Single Asset/Single Borrower CMBS are the strongest transaction scheme among European CMBS. Until November 2004, there have been 80 transactions totalling a New Issuance Volume of €60.6 billion.¹¹¹⁴

As with the overall evolution of Asset-Securitisation and the initiation of other sub-asset classes, the first Real Estate Securitisation transactions were executed in the UK. As the transaction schemes proved to be profitable and ripe, they were multiplied all over Europe.

Therefore, the evolution of the European CMBS market started in the UK during the mid-1990's with a limited number of Operating Company/WBS and Multi-Borrower Conduit transactions. However, the true inception of the European CMBS market was 1997, when large, one-off Single Asset or Single Borrower Securitisation transactions came into being. The engine of issuance became transactions such as the Annington Finance No.1/No.4, Canary Wharf and Broadgate deals that opened the market.¹¹¹⁵ Followed by Real Estate Securitisations of large portfolios of former government-owned assets in Italy, S.C.I.P. 1 & 2,¹¹¹⁶ and large telecom sale-leaseback Securitisations in the UK¹¹¹⁷, France, Italy¹¹¹⁸, and Switzerland¹¹¹⁹, the

¹¹¹⁰ Cf. Toft and Gamm (2000), p. 2; Vrensen (2001), p. 2; Vrensen (2002b), p. 1.

¹¹¹¹ Cf. Toft (1999), p. 1; Vrensen (2002a), p. 1.

¹¹¹² Cf. Wheeler (2001a), p. 765.

¹¹¹³ Cf. Anonymous (1999h), p. 19; Anonymous (2000d), p. 19; Anonymous (2000f), p. 11; Miller and Barret (2002), p. 1; Miller and Gidoomal (2000), p. 2.

¹¹¹⁴ Cf. List of European CMBS transactions (1996-2004), Chart 18 - Chart 21, pp. 388-391.

¹¹¹⁵ Cf. Ooi, *et al.* (2002), p. 60.

¹¹¹⁶ Cf. Rajendra, *et al.* (2004b), p. 1.

¹¹¹⁷ Cf. Palimeri (2004), p. 2; Pfister (2002b), p. 1.

market got lifted off the ground. The development of new issuance volumes over time can be observed in Figure 23: European CMBS - New Issuance (1996-2004).¹¹²⁰

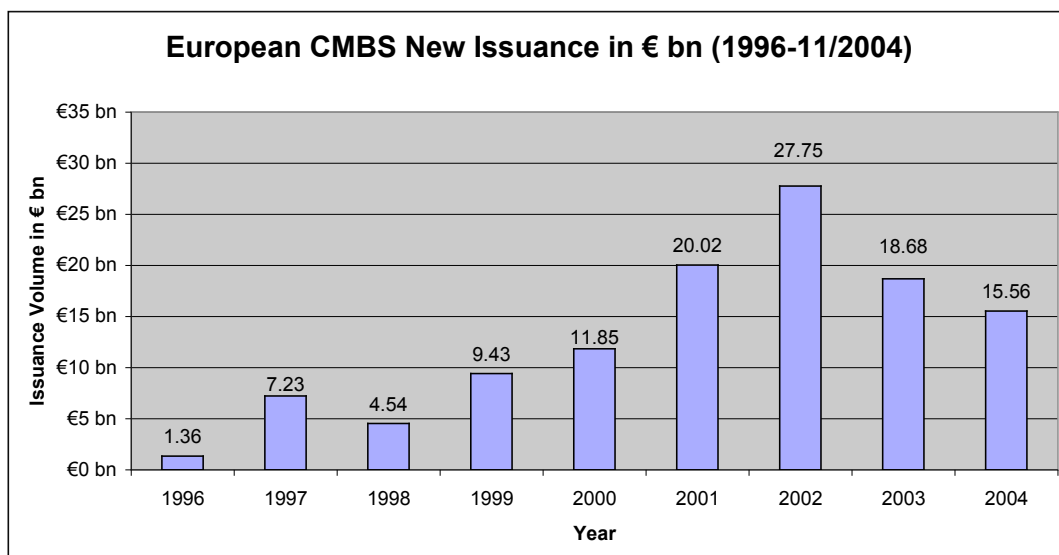


Figure 23: European CMBS - New Issuance (1996-2004)

Source: Authors Compilation

As CMBS lenders and arrangers spread across Europe, they often encountered challenges requiring expanded market-level due diligence, greater legal due diligence, and new ways of structuring forms of security to address differing tax regimes and country-specific enforcement procedures. With its great diversity of jurisdictional issues and submarkets, Europe still stays a challenge for lenders and issuers in CMBS and Real Estate Securitisations. Nevertheless, as issuers expand their experience base and deal flows increase, obstacles and timing delays will decrease. The driving force will become European Conduit taking away some market share from Single Asset/Single Borrower CMBS.¹¹²¹

“In European CMBS, we expect more in the way of conduit supply from established as well as new bank issuers. We believe conduit issuance could be fuelled by funding opportunities in corporate related real estate sales / leasebacks. Lease Securitisation volumes are likely to depend on whether

¹¹¹⁸ Cf. Pfister (2002a), p. 2.

¹¹¹⁹ Cf. Gamm (2003), p. 1.

¹¹²⁰ Cf. Hunt (2004), p. 1.

¹¹²¹ Cf. Hunt (2004), p. 2.

*Canary Wharf finalises its ownership plans in the foreseeable future, allowing the company to return to the CMBS market.*¹¹²²

In the near future, Moody's expects CMBS issuance to be dominated by the UK, Germany and Italy, and synthetic issuance will continue to play a reduced role in total issuance.¹¹²³

3. General Market Overview

In order to understand the drivers of the market one has to look at different segmentations of the total issuance volume. The total issuance at year-end 2003 was €209.9 billion, and at year-to-date (November) 2004 it was €222.3 billion. In the following it will be looked at a division of the total issuances by Asset class, by Country and by Type of Seller/Borrower/Originator – comparing the distributions in 2003 and 2004. From this analysis it will be possible to draw different conclusions for the European Asset-Securitisation market and for the further development of Real Estate Securitisation.

Division by Asset Class

Looking at the two pie charts, it can be derived that the overall distribution of asset classes within the Asset-Securitisation framework stays pretty much constant over time. Looking at the share of each individual asset class as it relates to the whole new issuance the following statements can be drawn from Figure 24: European ABS – Division by Asset Type:

- **Residential mortgage loans** (RMBS) still make up the biggest part of securitised assets, as most Asset-Securitisation transactions in Europe are bank-originated. Hence, those transactions are primarily balance sheet and regulatory equity driven. Residential mortgage loans represent the oldest and most homogeneous asset class in Europe, and therefore offer the greatest synergies. Above that investors seem to believe that RMBS are the safest haven in the arena of ABS. And only products that investors buy get securitised.

¹¹²² Cf. Rajendra, *et al.* (2004c), p. 19.

¹¹²³ Cf. Seymour (2004b), p. 3.

- The same reason as with RMBS counts for **corporate loans and corporate bonds** (CDO). New Issuance in that segment is also primarily bank driven and is initiated by balance sheet management and regulatory equity relief.
- **Commercial mortgage loans** (including Real Estate Securitisation deals) are the third strongest asset class. Being a very heterogeneous asset class (as every commercial loan and every piece of real estate are different) this market segment is a lot smaller than RMBS. Part of the reason lies also in the stronghold of commercial real estate financing institutions in Europe. Commercial lending is still one of the core competencies of those specialty real estate banks. As the market is shifting from credit to capital markets this will, however, change and real estate financing institutions will become the originators of commercial mortgage collateral for CMBS.
- **Credit Card Receivables and Auto Loans** have been a fairly constant asset class. Both have been around for a long time and have always attributed constant issuances. As the limited number of mostly corporate originators are securitising these assets on an on-going basis, the new issuance volumes are fairly small compared to the huge asset base of banks.
- All kinds of other **Receivable Securitisations** are summarised under Other ABS.
- Generally, the market is open for **new products and asset classes** as described in the Market Evolution part of this chapter. Those include project finance, public sector receivables and all sorts of Whole Business Securitisation, inter alia. Investor appetite for those newer and sometimes very innovative products for portfolio diversification has risen.

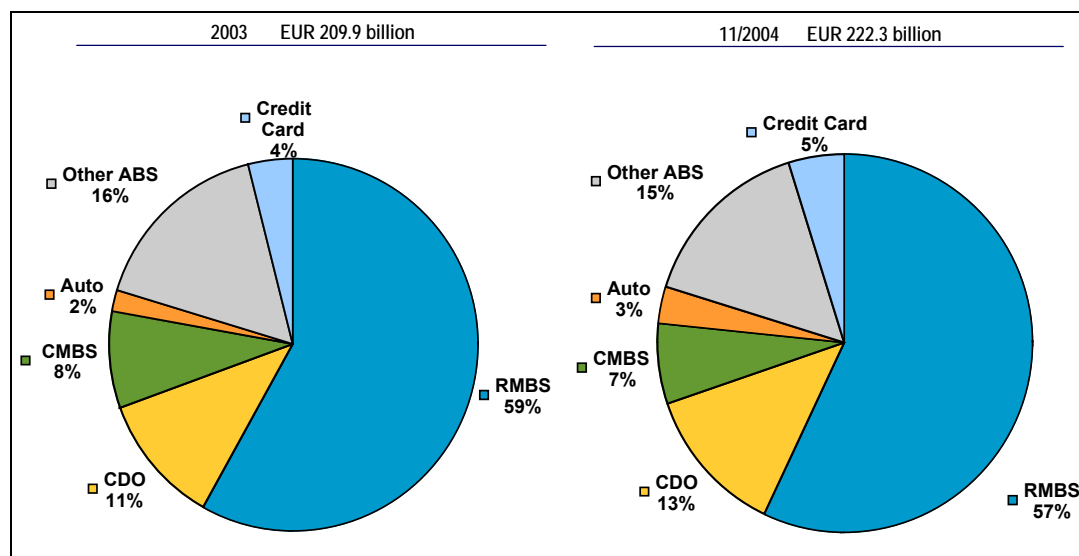


Figure 24: European ABS – Division by Asset Type

Source: Deutsche Bank¹¹²⁴

Going forward it is evident that residential mortgage loans and corporate loans/bonds will stay the most dominant assets. This can be primarily explained by the importance of Asset-Securitisation as a funding tool for banks.

Division by Country

- The **UK** is not only the oldest market in Europe, but is also the biggest Asset-Securitisation market in Europe. Today, the UK is even the largest Securitisation market outside of the United States. It has firmly established itself as a viable source of funds and as a balance sheet management tool for many UK corporates and banks. The UK will continue to be the largest market for securitised transactions in Europe for the foreseeable future.
- The UK is followed by **Italy** that has been a strong issuer for the last 4 years. Especially the government driven Real Estate Securitisations (S.C.I.P. 1 & 2) have raised Italy's share of the market in 2001 and 2002.

¹¹²⁴ The data used to compile the ABS New Issuance Volumes and the graphs on Division by Asset Type, Country and Originator is based on data supplied by Deutsche Bank Securitisation Research. Cf. Rajendra, *et al.* (2004a), p. 4.

- With new legislation in **Spain** and a growing acceptance in the Spanish market, the new issuance volume in Spain has increased and has made Spain Number 3 issuer in Europe for the first time.

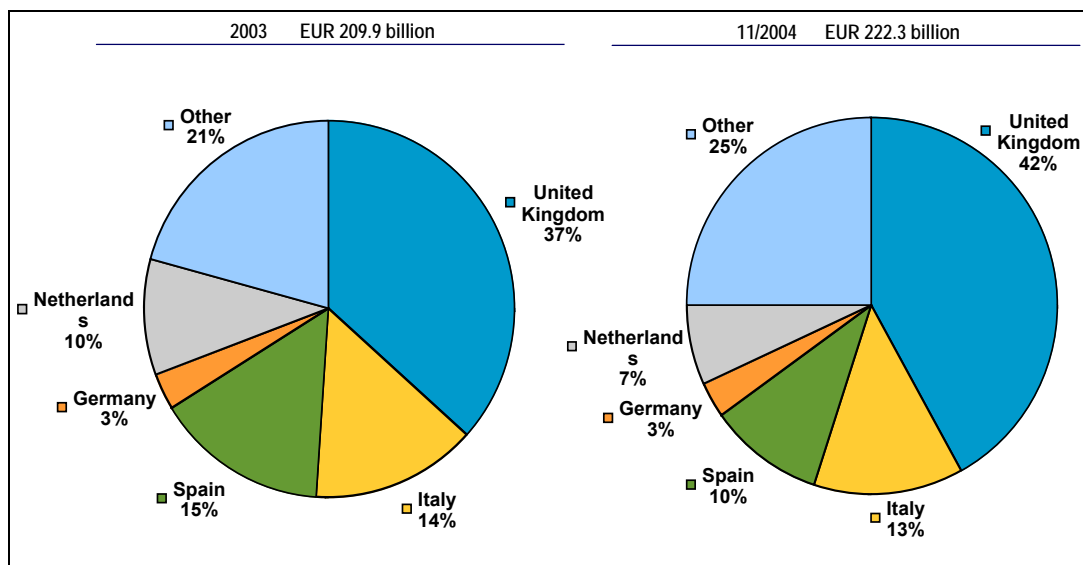


Figure 25: European ABS – Division by Country

Source: Deutsche Bank

- **The Netherlands** is keeping on going steady. Primarily fuelled by RMBS issuances, the Dutch Asset-Securitisation market has stayed a strong investor and issuer market during the last few years – especially regarding the small size of the Dutch economy.
- **Germany** being a big market for bank driven synthetic Securitisations is climbing up the ladder. The new issuance volume in Germany would be a lot smaller if only the funded portions of synthetic issuances were counted, though. The statistics, however, also count the big senior credit default swaps that never get securitised in the market, but that are part of the transaction. If only the true sale transactions were counted Germany wouldn't even be on the list as there are hardly any true sale transactions in Germany.

Division by Type of Seller/Borrower/Originator

As already mentioned above, **Banks** are still the biggest originator of Asset-Securitisation issues in Europe. This is mainly due to the fact that Asset-Securitisation transactions relieve regulatory capital that is very valuable to banks. Also, the instrument has come into favour for funding loans. Going forward, under Basel II, the funding motive will become even more

important. This leads to the conclusion that banks will keep on holding the first position in Asset-Securitisations.

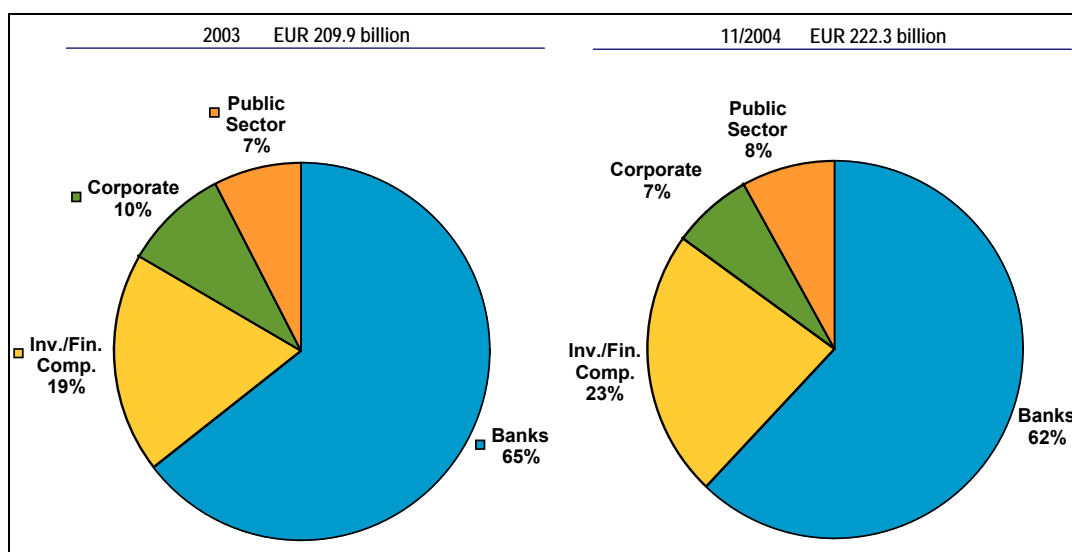


Figure 26: European ABS – Division by Country

Source: Deutsche Bank

Even though the **Corporate** and the **Public Sector** issuance volume have sunk, these two originator classes have the best potential for the future. The Public Sector Securitisations are weaker, since the EUROSTAT (the Department of European Statistics) published the new off-balance sheet criteria for European Governments.¹¹²⁵ The governments try to raise money without elevating their debt new indebtedness.

Investment and Financing Companies are increasing their influence through the repackaging of subordinate Asset-Securitisation tranches into new issuances.

Based on the previous analysis the following primary Asset-Securitisation markets in Europe can be identified (ranked in the order of importance and size – excluding Germany):

1. United Kingdom (UK)
2. Italy
3. Spain
4. The Netherlands

¹¹²⁵ Cf. Anonymous (2002h), p. 18; Arend and Schuff (2002), p. 4.

5. France

6. Luxembourg

The identified markets provide the basis for the subsequent analysis in Chapter 4.4.3, relating to the Asset-Securitisation and Real Estate Securitisation environment in Europe

4. Outlook for the European Asset-Securitisation market**General ABS Market¹¹²⁶**

The rating agencies expect to once again see many of the same achievements made in 2003 and 2004, only in greater volume. The next years will mirror 2003 and 2004 in many ways: an expanding number of originators, venturing into new markets and jurisdictions, will explore new structuring techniques to circumvent the inevitable road blocks they will encounter. All of these factors will continue to make Asset-Securitisations challenging for originators, lawyers, rating analysts, and investors, and will continue to require great effort and time to bring deals to the market. Struggling with and overcoming these obstacles over the past years has, in fact, paved the way for the industry's future growth.

Real Estate and Commercial Mortgage-Backed Securitisation market¹¹²⁷

As a result of the high issuance year-to-date, and the assessment of the potential pipeline for the future, the rating agencies anticipate that the interest shown by mortgage banks in accessing the public capital markets – especially in Germany – will continue. A greater number of banks will use true-sale transactions in 2005. It is anticipated by the rating agencies that the increase in true sale financings across Continental Europe will be the primary engine for new issuance volume in the near future.

In summary, the European CMBS market volume in 2004 was higher than expected. The relatively attractive spreads on CMBS notes compared to

¹¹²⁶ Seymour (2004a), p. 1.

¹¹²⁷ Cf. Vrensen, *et al.* (2004), p. 4.

other structured asset classes has attracted a significant number of new investors into the sector. The expectation for issuance volume in 2005 is that it will rise above 2004 levels.

4.4.2.3 Identified Transactions

As opposed to the US analysis, the part on Europe will display and analyze all transactions that can be summarised under Real Estate Securitisation and Commercial Mortgage-Backed Securitisation. First a delineation of transaction schemes will help to categorize the transactions. Then a comprehensive list of CMBS transaction will be displayed. Finally, the transaction summary will give an overview of the market and the market's segmentation.

1. Transaction Schemes

As in the US, most of the different transactions schemes in Europe are mortgage loan related, i.e. even if real estate cash flows are sold (as proposed by the Real Estate Securitisation concept), they are structured into interest and principal of a mortgage loan.¹¹²⁸ Due to that fact most Real Estate Securitisation transactions are categorised under the term Commercial Mortgage-Backed Securities (CMBS). As in the US this constitutes the generic term for all commercial real estate related Securitisation transactions in Europe. Even though not all Real Estate Securitisation transactions are backed by commercial mortgage loans (S.C.I.P. transactions). By industry standards, they are all categorized under CMBS.¹¹²⁹

Due to a European specificity all Asset-Securitisation transactions (incl. CMBS) can be segmented into 'True Sale' and 'Synthetic' Securitisations. Following this segmentation the subsequent transaction/deal schemes/types¹¹³⁰ can be identified:¹¹³¹

¹¹²⁸ This is done because the structures that were introduced in Europe in the 1980's were based on the structures utilised in the US.

¹¹²⁹ Cf. Anonymous II (2003), Interview 21, p. 554.

¹¹³⁰ The grouping and categorization of transaction schemes is based on the study of the market and rating agency as well as industry research material. In the market exist different definitions, terminologies and categorizations. Therefore this categorization might differ from other industry research.

I. Synthetic CMBS

1. Synthetic Portfolio-CMBS

There is only one kind of synthetic CMBS: Portfolio-CMBS. The originator in this kind of CMBS transaction is a commercial bank or a mortgage bank. The sole purpose of the transaction is to sell (swap) the credit risk of the underlying mortgage loan portfolio to capital markets investors. The concept is based on the concept of Credit Default Swaps (CDS) and Credit-Linked Notes (CLN). There is no sale of assets and there is no liquidity/funding effect for the originator. The sole motive is to reduce the regulatory capital imposed by the Basel Capital Accord.

II. True Sale CMBS

1. Real Estate-Backed Whole Business / Operating Company transactions

Those transactions are based on cash flows from an operating company that are backed by underlying real estate and that are structured into a secured loan structure. Operating Company CMBS are a European innovation and relate to transactions incorporating nursing homes, health care facilities, pubs, Telecom switching stations, airports and leisure businesses like Madame Tussauds.

2. European Multi-borrower Conduit CMBS (Large Loan CMBS)¹¹³²

Those transactions incorporate multiple properties and multiple borrowers, i.e. a number of large mortgage loans on commercial real estate that have specifically been originated for the sole purpose of Securitisation. The originator in the case of European Conduit CMBS is usually an investment bank, a big commercial

¹¹³¹ Cf. Rivlin and Philips (2003), Interview 23, p. 565; Philips (2003), p. 3; Vrensen (2003b), p. 22.

¹¹³² Conduit-CMBS transactions as identified in the US part (Chapter 4.3.2) do not exist in Europe. The European Conduit transactions incorporate large loans and not granular portfolio of small mortgage loans. Cf. Corcoran (2003), Interview 12, p. 554.

bank or a big real estate financing institution. Those transactions are independent from the originator's credit.

3. Single Asset/Property – Single Borrower

This transaction scheme incorporates one property or one borrower. Usually the deals are executed as direct issuances into the capital markets. There are three types:

- a. **Single Property/Single Borrower CMBS** – The underlying asset is a mortgage loan of a single borrower or on a single property. Transactions are dependent on the quality of the underlying property and the originator's, corporation's or tenant's credit rating.
- b. **Multiple Property/Single Borrower CMBS** – The underlying assets are multiple mortgage loans on multiple properties by a single borrower. Transactions are dependent on the quality of the underlying properties and the originator's, corporation's or tenant's credit rating.
- c. **Sale-Leaseback/Credit Tenant Lease Securitisation** – Transactions are primarily dependent on the property's tenant credit rating and are partly dependent on the quality of the property. There are three types: Sale-Leaseback, Built-to-Suite and Buy-Leaseback.

4. Portfolio-CMBS

The originator in Portfolio-CMBS is usually a commercial or a mortgage bank. The issued securities are backed by an underlying granular portfolio of bank-originated mortgage loans on commercial property. The majority of those loans have not been originated for Securitisation and are seasoned loans. Those transactions are independent from the originator's credit and are only based on the performance of the underlying mortgage loan pool.

2. Transaction List

The list of **European CMBS transactions (1996-2004)** displayed in Chart 18 - Chart 21¹¹³³ is not exhaustive, as the market for information on Asset-Securitisations is very inefficient and mostly private. Above that information from the different sources is not consistent with each other. The reason for this lies in different categorisations and definitions of the respective markets and asset classes. Even though the main sources of CMBS data in Europe have been surveyed for this list, there may still be transactions that are missing.

The **data source** used to compile the list of European CMBS transactions (1996-2004) as well as the CMBS New Issuance Volumes (1996-2004) is based on raw data supplied by Deutsche Bank Securitisation Research, Moody's CMBS Research and JP Morgan Securitisation Research. This is valid for all graphs and tables in the following chapters that relate to European CMBS.

The analysis has identified **213 transactions** that fall into the category of **Commercial Mortgage-Backed Securitisation** and **Real Estate Securitisation**. It does not include private transactions – only public transactions are listed. Furthermore, the compilation only includes rated issuances. Non-rated issuances are mostly private placements that do not spread information into the capital markets.

The displayed list might vary from other CMBS 'New Issuance Lists', as it includes the Italian Treasury's 'Società Cartolarizzazione Immobili Pubblici S.r.l.' transactions - **S.C.I.P. 1** and **S.C.I.P. 2**. In many CMBS compilations those transactions are not included as they do not fit into the concept of Commercial Mortgage Loan Securitisation and they skew the new issuance volumes because of their sizes. The reason the deals do not fit the traditional CMBS context is that the transactions securitise current income from multi-family and office properties as well as future privatisation (sales) proceeds. With that the deals rather feature true Real Estate Securitisation than Commercial Mortgage Loan Securitisation.

¹¹³³ Cf. pp. 388-391.

#	Year	Date	Issuer	Property Type	Country	Total in Ū (in million)
1	1996	04/11/1996	Annington Finance No 1 plc	Multi-Family	UK	1,355.7
2	1997	12/03/1997	Care Homes No 1 Ltd.	Healthcare	UK	155.8
3	1997	12/03/1997	Northavon	Office	UK	125.5
4	1997	07/05/1997	PARCS Ltd.	Office	UK	217.0
5	1997	17/06/1997	Acres	Mixed	UK	191.3
6	1997	18/07/1997	Mooncrest	Office	UK	207.2
7	1997	19/08/1997	Colisee	Mixed	France	105.2
8	1997	03/09/1997	County Hotels Group plc	Hotel	UK	118.3
9	1997	25/10/1997	La Defense	Office	France	341.8
10	1997	18/11/1997	Canary Wharf	Office	UK	938.0
11	1997	06/12/1997	Chelsea Village plc	Multi-Family	UK	123.8
12	1997	15/12/1997	Annington Finance No 4 plc	Multi-Family	UK	4,710.0
13	1998	20/01/1998	Housing Association Funding plc	Social Housing	UK	95.2
14	1998	22/01/1998	Haven Funding (32) PLC	Social Housing	UK	85.4
15	1998	03/02/1998	Quadrant Housing Finance Ltd	Multi-Family	UK	182.8
16	1998	13/02/1998	Fresenius Medical Care Capital Trust III	Healthcare	US	381.7
17	1998	18/02/1998	Central European Land Ltd	Office	UK	45.9
18	1998	12/03/1998	Punch Taverns	Pub	UK	752.4
19	1998	25/03/1998	BL Universal plc	Office	Multi	421.9
20	1998	01/04/1998	Sasco Europe 1998-C1 plc	Office	UK	143.2
21	1998	24/04/1998	Haven Funding plc	Social Housing	UK	334.1
22	1998	14/05/1998	Sanctuary Housing Association	Multi-Family	UK	70.3
23	1998	15/05/1998	Haven Funding (32) PLC	Social Housing	UK	30.3
24	1998	27/05/1998	Northern British Housing Association	Multi-Family	UK	140.6
25	1998	11/06/1998	Northern Counties Housing Association Ltd	Multi-Family	US	42.2
26	1998	18/06/1998	Summit Finance (Law) PLC	Healthcare	UK	192.0
27	1998	26/06/1998	Colonnade 98-1	Social Housing	Netherlands	147.5
28	1998	03/09/1998	Fennica No 3 plc	Multi-Family	Finland	334.4
29	1998	21/10/1998	Welcome Break Finance plc (Tap)	Other	UK	484.5
30	1998	01/11/1998	Haven Funding (32) PLC	Social Housing	UK	25.5
31	1998	10/11/1998	Colonnade 98-1 (Tap Issue)	Social Housing	Netherlands	79.4
32	1998	16/11/1998	Premier Pub Finance Company PLC	Pub	UK	218.1
33	1998	26/11/1998	Roadchef Finance Ltd	Retail	UK	295.3
34	1998	30/11/1998	Fiorentina Finance Ltd	Retail	Italy	34.9
35	1999	19/01/1999	Great Portland Estates plc	Mixed	UK	142.5
36	1999	25/01/1999	Enterprise Inns plc	Pub	UK	85.7
37	1999	05/02/1999	Care Homes No 2 Ltd	Healthcare	UK	383.3
38	1999	12/02/1999	Chene Financial Ltd	Multi-Family	France	228.7
39	1999	16/02/1999	Haven Funding plc	Social Housing	UK	10.1
40	1999	01/03/1999	South Somerset Homes Ltd	Other	UK	97.8
41	1999	11/03/1999	Hotel Securitisation No 1 plc	Hotel	UK	77.1
42	1999	16/03/1999	Tiara Securities Issuer BV	Healthcare	UK	182.1
43	1999	23/03/1999	La Defense II plc	Office	France	132.0
44	1999	24/03/1999	The Unique Pub Finance Co plc	Pub	UK	1,207.7
45	1999	24/03/1999	Catalyst Healthcare (Worcester) plc	Healthcare	UK	144.6
46	1999	23/04/1999	London Exhibition Centre	Other	UK	276.8
47	1999	28/04/1999	Asda Property Holdings Plc	Office	UK	75.9
48	1999	30/04/1999	RSL Finance No 1 plc	Multi-Family	UK	143.2
49	1999	05/05/1999	Broadgate Plc	Office	UK	2,343.6
50	1999	06/05/1999	Colonnade 1999-1	Social Housing	Netherlands	230.0
51	1999	07/05/1999	Tussauds Finance Ltd	Other	UK	350.0
52	1999	24/05/1999	Criterion Healthcare PLC	Healthcare	UK	98.1
53	1999	23/06/1999	Pubmaster Finance Ltd	Pub	UK	467.8
54	1999	29/06/1999	Dutch Housing Association Finance	Multi-Family	Netherlands	109.0
55	1999	20/08/1999	European Loan Conduit No 1 BV	Office	Multi	256.5
56	1999	09/09/1999	Fennica No 4 plc	Multi-Family	Finland	500.0
57	1999	21/09/1999	Alehouse Finance plc	Pub	UK	285.5
58	1999	27/10/1999	City Aviation Finance Ltd	Other	UK	155.6
59	1999	01/11/1999	Paternoster Securitisation No 1 plc	Mixed	UK	169.3
60	1999	08/11/1999	Care Homes No 3 Ltd	Healthcare	UK	302.6

Chart 18: List of European CMBS Transactions (1996-1999)

Source: Authors Compilation

#	Year	Date	Issuer	Property Type	Country	Total in Ū (in million)
61	1999	30/11/1999	European Loan Conduit No 2 BV	Office	UK	570.4
62	1999	05/12/1999	DHB-1	Office	Germany	262.3
63	1999	16/12/1999	Kings College Hospital	Healthcare	UK	145.2
64	2000	08/02/2000	UK Care No 1 Ltd	Healthcare	UK	381.0
65	2000	09/02/2000	Pubmaster Finance Ltd	Pub	UK	176.7
66	2000	21/02/2000	Avebury Properties Limited	Pub	UK	232.0
67	2000	22/02/2000	Trafford Centre Finance Ltd	Retail	UK	989.0
68	2000	23/02/2000	Morfun No. 1 plc	Multi-Family	Sweden	121.9
69	2000	01/03/2000	Colonnade 2000-1	Social Housing	Netherlands	170.0
70	2000	10/03/2000	Europa One Ltd	Mixed	Germany	1,345.0
71	2000	17/03/2000	Highbury Finance BV	Retail	UK	549.1
72	2000	23/03/2000	Peveler Funding Ltd	Multi-Family	UK	167.2
73	2000	25/05/2000	Canary Wharf Finance II plc	Office	UK	790.1
74	2000	14/06/2000	Punch Funding II Ltd	Pub	UK	2,347.7
75	2000	14/06/2000	Integrated Accomodation Services plc	Office	UK	643.6
76	2000	16/06/2000	European Loan Conduit No 3 plc	Office	Multi	402.8
77	2000	04/08/2000	Haven Funding plc	Social Housing	UK	107.1
78	2000	15/08/2000	Dragon Finance BV	Retail	UK	386.3
79	2000	01/09/2000	Westminster Priory Healthcare Finance Ltd	Healthcare	UK	180.0
80	2000	14/09/2000	Monument Securitisation No 1 plc	Mixed	UK	637.0
81	2000	25/09/2000	European Loan Conduit No 4 plc	Office	UK	764.3
82	2000	06/10/2000	Fennica No 5 plc	Multi-Family	Finland	800.0
83	2000	18/10/2000	Punch Taverns Finance plc	Pub	UK	425.0
84	2000	01/11/2000	Really Useful Theatres Finance Ltd	Other	UK	144.5
85	2000	15/11/2000	Colonnade 2000-1	Social Housing	Netherlands	90.0
86	2001	01/02/2001	Enterprise Inns plc	Pub	UK	197.6
87	2001	15/02/2001	Canary Wharf Finance plc	Office	UK	187.9
88	2001	27/02/2001	Unique Pub Finance Co plc	Pub	UK	534.4
89	2001	28/02/2001	Store Finance plc	Retail	UK	478.5
90	2001	23/03/2001	Silver No 1 plc	Healthcare	UK	417.7
91	2001	30/03/2001	Europa Two Ltd	Mixed	Germany	1,531.0
92	2001	02/03/2001	European Loan Conduit No 5 plc	Mixed	UK	844.2
93	2001	26/04/2001	Pan-European Industrial Properties Series	Industrial	UK	213.8
94	2001	30/05/2001	Sunderland (SHG) Finance plc	Social Housing	UK	397.1
95	2001	31/05/2001	Canary Wharf Finance II plc	Office	UK	1,451.4
96	2001	07/06/2001	Global Hotel One Ltd	Hotel	Multi	298.4
97	2001	15/06/2001	Werretown Supermarkets Securitisation plc	Retail	UK	935.1
98	2001	19/06/2001	Powerhouse Finance	Multi-Family	France	690.8
99	2001	05/07/2001	European Loan Conduit No 6 plc	Office	UK	755.4
100	2001	23/07/2001	Alehouse Finance plc (Tap)	Pub	UK	56.5
101	2001	25/07/2001	Housing Association Funding plc	Social Housing	UK	46.0
102	2001	06/08/2001	Bromios (European Loan Conduit No 7) plc	Office	UK	551.6
103	2001	21/08/2001	EUROHYPO AG	Office	Germany	351.0
104	2001	10/09/2001	Colonnade Securities BV	Social Housing	Netherlands	210.0
105	2001	20/09/2001	Framtiden Residential Housing Finance No	Multi-Family	Sweden	260.0
106	2001	24/10/2001	Fennica No 6 plc	Multi-Family	Finland	500.0
107	2001	09/11/2001	Dutch Care 2001 - I BV	Healthcare	Netherlands	257.0
108	2001	22/11/2001	Coronis (European Loan Conduit No 8) plc	Office	UK	883.9
109	2001	28/11/2001	Meadowhall CMR Finance plc	Retail	UK	1,325.3
110	2001	03/12/2001	Amethyst Finance plc	Retail	UK	527.2
111	2001	07/12/2001	Telereal Securitisation plc	Other	UK	2,866.7
112	2001	10/12/2001	Windermere I CMBS plc	Office	UK	750.4
113	2001	13/12/2001	Westfaelische Hypothekenbank AG-Dutch	Office	Netherlands	198.9
114	2001	20/12/2001	S.C.I.P. 1 - Societa Cartolarizzazione Imm	Mixed	Italy	2,300.0
115	2002	31/01/2002	Ellenbook Developments plc	Multi-Family	UK	97.8
116	2002	06/02/2002	Enterprise Inns plc	Pub	UK	451.5
117	2002	11/02/2002	Canary Wharf Finance II plc (2nd Tap)	Office	UK	2,044.3
118	2002	25/02/2002	Annington Finance No 4 plc	Multi-Family	UK	994.5
119	2002	20/03/2002	Annes Gate Property Plc	Office	UK	442.2
120	2002	27/03/2002	Spirit Funding Ltd	Pub	UK	1,065.2

Chart 19: List of European CMBS Transactions (1999-2002)

Source: Authors Compilation

#	Year	Date	Issuer	Property Type	Country	Total in Ū (in million)
121	2002	27/03/2002	France Industrial Properties No 1 SA	Industrial	France	144.0
122	2002	04/04/2002	Unite Finance One plc	Multi-Family	UK	446.4
123	2002	22/04/2002	Real Value One	Office	Multi	199.2
124	2002	14/05/2002	Pan-European Industrial Properties Series	Industrial	Multi	356.0
125	2002	29/05/2002	Dionysus (European Loan Conduit No 9) p	Office	France	470.0
126	2002	29/05/2002	Monument Securitisation No 2 plc	Mixed	UK	631.7
127	2002	10/06/2002	Colonnade Securities BV 2002	Social Housing	Netherlands	145.0
128	2002	14/06/2002	Dolerite Funding No1 plc	Office	UK	764.8
129	2002	02/07/2002	HOTELoC plc	Hotel	UK	820.1
130	2002	05/07/2002	UK Hospitals No 1	Healthcare	UK	694.4
131	2002	27/07/2002	Vesteda Residential Funding I BV	Multi-Family	Netherlands	1,600.0
132	2002	05/08/2002	Eros (European Loan Conduit No 10) FCC	Office	France	342.0
133	2002	07/08/2002	Nymphenburg 2002-1 Ltd	Office	Germany	2,170.5
134	2002	13/09/2002	The Unique Pub Finance Co plc	Pub	UK	1,354.1
135	2002	25/09/2002	RSL Finance No 1 plc	Multi-Family	UK	86.7
136	2002	30/09/2002	Duke 2002	Office	Multi	813.5
137	2002	11/10/2002	Imser Securitisation Srl	Other	Italy	1,163.4
138	2002	16/10/2002	Canary Wharf Finance II plc (Tap)	Office	UK	514.5
139	2002	01/11/2002	Feronia (European Loan Conduit No 11) p	Office	UK	525.2
140	2002	21/11/2002	Pubmaster Finance Ltd (Tap)	Pub	UK	839.2
141	2002	28/11/2002	Tornator Finance	Other	Finland	370.0
142	2002	10/12/2002	S.C.I.P. 2 - Societa Cartolarizzazione Imm	Multi-Family	Italy	6,637.0
143	2002	12/12/2002	GECO 2002 Ltd	Mixed	Germany	590.0
144	2002	12/12/2002	WuerttHyp EU-1	Office	Multi	373.7
145	2002	13/12/2002	Bamburgh Finance No 1 plc	Multi-Family	UK	317.6
146	2002	19/12/2002	Global Commercial One	Mixed	Multi	282.5
147	2003	07/02/2003	Annington Repackaging No 1 Ltd	Multi-Family	UK	843.4
148	2003	10/02/2003	Berica 3 MBS Srl	Office	Italy	409.7
149	2003	11/02/2003	Romulus Finance Srl	Other	Italy	1,264.2
150	2003	14/02/2003	Pan-European Industrial Properties Series	Industrial	Multi	190.5
151	2003	28/02/2003	Gorgons (European Loan Conduit No 12) f	Office	UK	339.2
152	2003	25/04/2003	Real Estate Capital No. 1	Retail	UK	272.2
153	2003	13/05/2003	Eiger Trust	Office	UK	699.0
154	2003	14/05/2003	Cartesio Srl Series 2003-1	Healthcare	Italy	141.0
155	2003	16/04/2003	Hermione (European Loan Conduit No 14)	Industrial	UK	423.0
156	2003	30/06/2003	DECO 2003-CIT	Retail	UK	353.8
157	2003	01/07/2003	Northern British Housing Association	Social Housing	UK	288.9
158	2003	02/07/2003	Consort Healthcare (Blackburn) Funding p	Healthcare	UK	92.3
159	2003	04/07/2003	Juturna (European Loan Conduit No 16) pl	Office	UK	1,175.0
160	2003	11/07/2003	First Real Estate SA	Office	Italy	243.6
161	2003	31/07/2003	Craegmoor Funding No 2 Ltd	Healthcare	UK	344.0
162	2003	01/08/2003	Harbour Funding plc	Social Housing	UK	255.9
163	2003	12/08/2003	Spirit Funding Ltd	Pub	UK	188.1
164	2003	28/08/2003	Priory Finance Co Ltd	Healthcare	UK	300.6
165	2003	03/09/2003	Derby Healthcare plc	Healthcare	UK	593.0
166	2003	10/09/2003	Bramante plc	Office	Italy	214.6
167	2003	19/09/2003	Iolaus (European Loan Conduit No 15) plc	Office	UK	544.5
168	2003	29/09/2003	Werretown Supermarkets Securitisation pl	Retail	UK	41.1
169	2003	17/10/2003	Windermere II CMBS plc	Office	UK	438.6
170	2003	29/10/2003	Punch Taverns Finance plc	Pub	UK	1,385.5
171	2003	29/10/2003	Polish Retail Properties Finance plc	Retail	Poland	74.0
172	2003	30/10/2003	Europa Three Ltd	Mixed	Multi	322.2
173	2003	06/11/2003	Mitchells & Butlers Finance plc	Pub	UK	2,768.6
174	2003	12/11/2003	PremierTel plc	Office	UK	416.4
175	2003	13/11/2003	Paris Residential Funding plc	Multi-Family	France	964.2
176	2003	18/11/2003	DECO Centro Ltd.	Retail	Germany	549.2
177	2003	19/11/2003	Opera Finance No 1 plc	Office	UK	519.0
178	2003	21/11/2003	Khronos (European Loan Conduit No 17) p	Office	Multi	335.3
179	2003	02/12/2003	Nightingale Funding Plc.	Healthcare	UK	342.4
180	2003	11/12/2003	Global Commercial Two	Mixed	Multi	382.3

Chart 20: List of European CMBS Transactions (2002/2003)

Source: Authors Compilation

#	Year	Date	Issuer	Property Type	Country	Total in Ū (in million)
181	2003	12/12/2003	Coeur D'fense FCC	Office	France	820.0
182	2003	12/12/2003	WuerttHyp F-1	Office	France	148.9
183	2004	25/02/2004	La Defense Plc	Office	France	635.0
184	2004	26/02/2004	Telereal Securitisation plc	Office	UK	1,458.0
185	2004	27/02/2004	European Property Capital 1	Mixed	France	355.5
186	2004	04/03/2004	Business Mortgage Finance 1 Plc	Mixed	UK	199.4
187	2004	08/03/2004	Windermere III CMBS Plc	Mixed	Scandinavia	460.2
188	2004	17/03/2004	White Tower 2004-1 Plc	Office	UK	306.4
189	2004	24/03/2004	Harbour Funding (Tap)	Social Housing	UK	111.0
190	2004	01/04/2004	Delamare Finance	Retail	UK	939.0
191	2004	02/04/2004	Midgaard Finance	Office	Scandinavia	775.0
192	2004	20/04/2004	AyT Promociones Inmobiliarias II	Multi-Family	Spain	475.4
193	2004	23/04/2004	Vesteda Residential Funding I (Tap)	Multi-Family	Netherlands	400.0
194	2004	26/04/2004	Alehouse Finance Plc	Pub	UK	360.6
195	2004	10/05/2004	Sandwell Commercial Finance No.1	Multi-Family	UK	373.3
196	2004	26/05/2004	Real Estate Capital No. 2	Office	UK	366.3
197	2004	22/06/2004	Castanea One	Office	Multi	314.8
198	2004	30/06/2004	European Loan Conduit 18 (Leto)	Office	France	419.4
199	2004	07/07/2004	BBC Pacific Quay Finance	Office	UK	192.2
200	2004	19/07/2004	Marlin (EMC-II)	Office	Multi	614.0
201	2004	02/08/2004	Gepalazio	Healthcare	Italy	150.0
202	2004	04/08/2004	European Loan Conduit 19 (Morpheus)	Mixed	UK	906.9
203	2004	04/08/2004	Annington Finance No 4 plc	Multi-Family	UK	1,399.4
204	2004	06/08/2004	Opera Finance Plc (Lakeside)	Retail	UK	832.2
205	2004	13/08/2004	Nereus (European Loan Conduit No. 20)	Office	Italy	332.0
206	2004	06/09/2004	Framtiden Public Housing Finance No. 5	Multi-Family	Sweden	295.0
207	2004	27/09/2004	Epic (Caspar)	Office	UK	774.8
208	2004	27/09/2004	PICTS	Office	UK	223.0
209	2004	06/10/2004	Self-Storage Securitisation	Industrial	Multi	325.0
210	2004	15/10/2004	Epic Opera (Arlington)	Office	UK	436.8
211	2004	20/10/2004	Windermere IV CMBS	Office	UK	646.5
212	2004	21/10/2004	Global Commercial Three	Mixed	Germany	272.3
213	2004	05/11/2004	Business Mortgage Finance 2 Plc	Office	UK	214.5

Chart 21: List of European CMBS Transactions (2003/2004)

Source: Authors Compilation

The interest and principal are implicitly guaranteed by the Italian government. So it also has aspects of Credit Tenant Lease Securitisation.

Thus, this transaction list summarises and categorizes all transactions that fall under the category of Real Estate Securitisation and Commercial Mortgage-Backed Securitisation (including Bank-originated CMBS).

3. Market Analysis/Segmentation

The overall CMBS market (including Real Estate Securitisation transactions) has strongly risen from its final birth in 1996 to its height in 2002. Especially in 2001 and 2002 the Italian government deals S.C.I.P 1 & S.C.I.P 2 have significantly bolstered year-end data, amounting to one fourth of total

issuance in 2002.¹¹³⁴ Since then the market has calmed down, but is expected to get a boost in 2004 and 2005 through an increasing number of True Sale Portfolio CMBS.

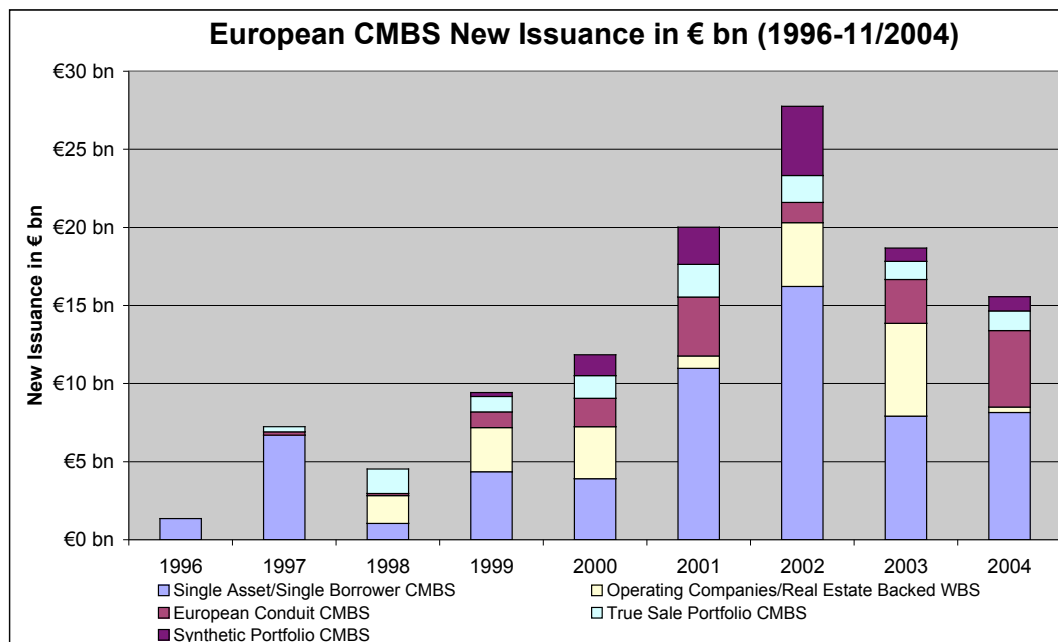


Figure 27: Distribution of Transaction Schemes 1996-2004 Source: Authors Compilation

Traditionally, **Single Asset/Single Borrower transactions** have been the strongest transaction scheme. This makes sense as Single Asset/Single Borrower transactions feature a lower complexity and given the outstanding quality of property or credit of the tenant, in the past, they were easier to place with investors. After a period of constant growth, the share of single asset deals has been declining since 2002.

The second largest group is **Real Estate-Backed Whole Business / Operating Company Securitisations**. This has mainly been driven by the privatisation tendencies in the UK. The market share of this transaction scheme is declining, though. And as potential assets in the UK are diminishing and as this Securitisation scheme is not very feasible in the other European countries, it becomes inevitable that this transaction scheme will vanish in the future.

¹¹³⁴ Cf. Collingridge, *et al.* (2003), p. 246.

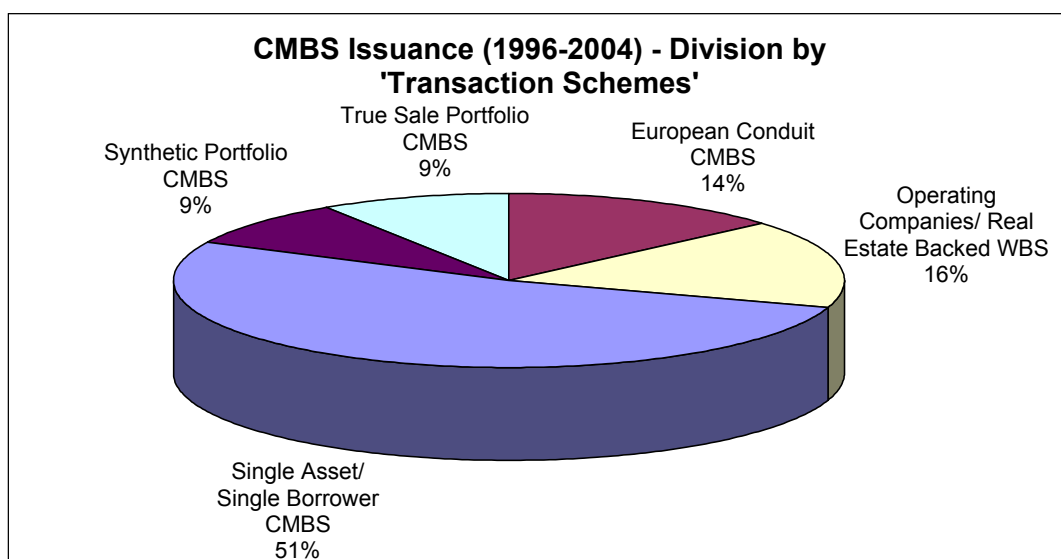


Figure 28: Distribution of Transaction Schemes (in %)

Source: Authors Compilation

The share of **European Conduit CMBS** as a percentage of total CMBS issuance has risen significantly over the past 4 years. Conduit transactions have risen to become the third biggest transaction scheme in Europe. As the market gets more efficient, issuance get more standardised and Conduit sponsors built up a good reputation for their programs (like Morgan Stanley's ELOC Conduit), the Conduit market will become the driving force in the development of the European CMBS market.

Until now **Portfolio-CMBS** have played a minor role as real estate financing institutions have kept the most part of their commercial mortgage loan engagements on their balance sheets. In this respect, Synthetic Portfolio-CMBS Securitisations had a strong increase from 2000 until 2002 because this was the time when this risk transfer instrument became popular in Germany, where True Sale Portfolio CMBS were legally not possible. As a lot of risk has been transferred and regulators are starting to embrace true sale transactions, Synthetic Portfolio CMBS will decline and True Sale Portfolio CMBS will increase.

From a Geographic perspective the UK is still the biggest market for CMBS in Europe; with an overall market share of 65%. The Italian CMBS market has become the second largest in Europe – this can be mainly attributed to the Italian Treasury deals. France, Germany, Scandinavia and the Netherlands all have nearly the same share of the pie.

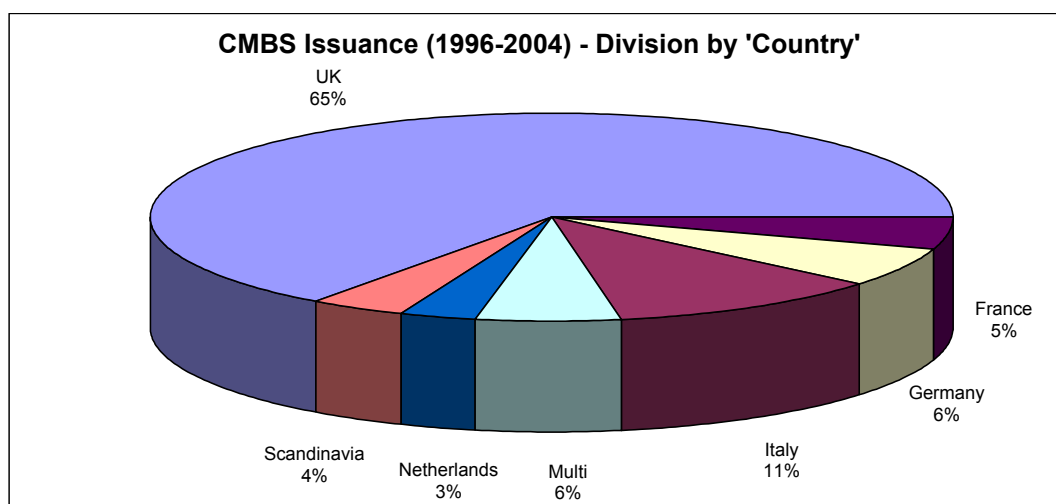


Figure 29: Geographic Distribution of European CMBS

Source: Authors Compilation

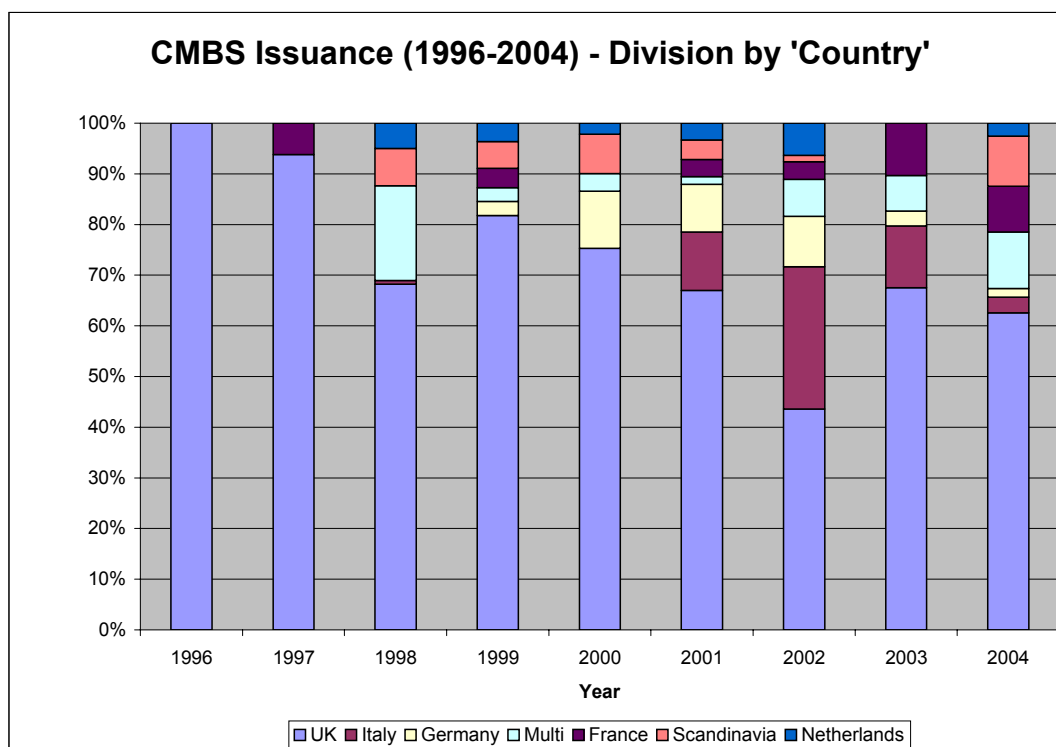


Figure 30: Geographic Distribution as Percentage of Total

Source: Authors Compilation

Even though the UK is the biggest market in Europe, the total new issuance in the UK as a percentage of the total European Issuance is declining. New markets in Continental Europe are increasingly broadening their issuance base. The UK is losing ground as can be observed in Figure 30: Geographic Distribution as Percentage of Total.

4.4.3 Environments

The following part will go into the different environments governing the Real Estate Securitisation market in Europe. For the Regulatory, Legal and Tax environments the important markets identified in Chapter 4.4.2.2 will be surveyed to come to a conclusion about the importance of those environments for the evolution of the overall European Real Estate Securitisation market.

4.4.3.1 Regulatory/Legal Environment

In Europe, the regulatory and legal environments in the different countries set the scene for the overall Asset-Securitisation environment. They make up the framework for all transactions. As a result, the legal and regulatory environment has carried a great importance in the evolution of the Asset-Securitisation market in Europe.

Due to the nature of the legal system in Europe (diverse regulatory regimes and different types of laws in every European country), the legal and the regulatory environment in Europe merge into one. It is the regulatory institutions that bring forward laws that regulate, control and develop Asset-Securitisation. In this regard, the market in Europe is fundamentally different from the US or Singapore, where the legal and regulatory environments were separate.

In Europe, the legal framework for Securitisation in any given country is a large factor for how much activity can be seen in that country.

Regulatory & Legal Environment

In the United States, most legal issues with regard to Asset-Securitisation have long been settled and the market has reached a very mature stage. So for the analysis of such securities it is easy to focus solely on mathematics and valuation. However, in Europe, the legal setup of a deal is crucial. The arranging of the deals is complicated and legal fees are the main up front cost

for originators. Keeping in mind that bonds are contractual agreements and in the case of Asset-Securitisation they become complex contractual agreements, then this results in a flood of documents that need to be drawn up by lawyers, accountants and tax specialists. In this regard, a really excellent model for forecasting cash flows does not help investors much in a bankruptcy situation, if the assets and cash flows are not properly secured, due to bad contract drafting. So, the legal component plays a very crucial part in European Asset-Securitisation transactions, and there are three general areas to think about in regard to legislation:¹¹³⁵

1. Type of law (Anglo-Saxon, Germanic, or Napoleonic).
2. Securing the assets and cash flows.
3. Local framework for Securitisation.

In the United States, legal discussions regarding Asset-Securitisation only focus around how the asset is secured. The type of law (Anglo-Saxon) and the framework are taken for granted. However, in Europe, all three aspects must be given close scrutiny. Thus, all three areas will be dealt with in the following analysis.

1. Type of Law¹¹³⁶

The main types of law in Europe can be broadly characterized into Anglo-Saxon, Germanic, and Napoleonic law. The financial markets, however, tend to apply Anglo-Saxon law as the United States and United Kingdom are the strongest financial centres in the world.

Anglo-Saxon Law

Anglo-Saxon is only applied in Great Britain, where it has originated. Historically, this is also the only region in Europe, where it is practiced. Anglo-Saxon law is contract law – there is only a small amount of laws that establish a broad framework under which individuals can make their own agreements.

¹¹³⁵ Cf. Davidson, *et al.* (2003), p. 489.

¹¹³⁶ Cf. Davidson, *et al.* (2003), p. 490.

Contractual agreements between parties are rarely governed by specific laws and are open to many interpretations. Therefore, in case of disagreement, the outcome can usually only be predicted based on case law or precedent cases.

On the positive side, this type of law allows for a large degree of flexibility since parties can agree to almost anything that they can think up. Very little things are specifically illegal. This is extremely beneficial for the financial markets. It opens room for new creations and new solutions. On the negative side, this type of approach must try to think of all possible aspects and consequences of an agreement and ensure that every thing is specifically included in the contract. It creates a lot of paper, lengthy conversations with lawyers, and large legal bills.

Germanic Law

Germanic law is prevalent in Northern Europe. Various local versions exist in countries such as Germany, Sweden, Finland, the Netherlands, Austria, Denmark, and Norway. This type of law is the extreme opposite of the Anglo-Saxon legal system. The legal framework is very detailed regarding many areas of the economy and the financial sector. Contracts between parties have to be based on the commercial code.

On the positive side, the Germanic legal framework provides for legal documents to be shorter because detailed law governs many aspects. This also means less structuring time, legal costs and effort, once a transaction structure has been proven to work. In the case of disputed contracts, there is less room for interpretation of agreements. The outcomes are pretty predictable. On the negative side, the Germanic law is not very flexible. With respect to financial markets and Asset-Securitisation transactions this poses a problem. New structures often arrive faster than regulators can amend laws to keep up, and thus sometimes financial innovations disappear again.

Napoleonic Law

Napoleonic law is a mixture between Germanic law and Anglo-Saxon law. In many areas the Napoleonic law is detailed. However, in the whole, there tends to be more flexibility and room for interpretation than in a Germanic

law system, depending on the country. Countries in this category include France, Belgium, Luxembourg, Spain, and Portugal.

2. Securing the cash flow and assets¹¹³⁷

Asset-Securitisation is based on the transfer of assets from the originator to the investors. For the investors the key issue is obtaining the legal ownership or the right to the revenue-producing asset. It is this right that differentiates Asset-Securitisation transactions from other forms of debt.

With respect to real estate assets, the basic idea of a mortgage loan is the same in most countries around the world. The loan that is granted is backed by real estate as collateral/security. So, in the case of the borrower not paying the contractually agreed interest and principal on the loan, the lender has the right to foreclose into the real estate, in order to satisfy the outstanding loan. In Europe, the principle idea is the same as in the US, but the details differ widely over each country. The main areas of concern under such loan agreements are:¹¹³⁸

- I. The loan contract
- II. The security
- III. The legal foreclosure process

The main questions with respect to Asset-Securitisation and bankruptcy-remoteness of the transaction are:

- How is the collateral secured?
- If the collateral is seized, does the borrower still have to pay the loan?
- How does the lender know that he or she has sole right to the real estate?

Obtaining the legal right to the asset is often done via a 'true sale', i.e. the asset is sold by the seller/originator/borrower to an SPV, which is specifically set up for the sole purpose of owning the asset. The true sale is

¹¹³⁷ Cf. Davidson, *et al.* (2003), p. 492.

¹¹³⁸ Cf. Davidson, *et al.* (2003), p. 471.

avoids that other creditors of the originator can access the collateral in the case of bankruptcy of the originator. Above that, the sale avoids delays in obtaining the collateral in case of bankruptcy. The concept of true sale, however, can be misleading. Especially in Europe, with the secured loan structures and different legal requirements, it is not always possible to transact a true sale. From the US perspective, it is often thought that without a true sale, there can be no real Asset-Securitisation. This is wrong – the key point is not to have a true sale but to have the cleanest possible right to the assets in question.

This again leads to the question about asset, collateral and security of an Asset- or Real Estate Securitisation transactions. The collateral can have multiple layers of security. For example, in a RMBS deal the asset is a loan that is backed by a mortgage on real estate. The 'true sale' is on the loan, not the underlying real estate, which remains owned by the borrower. In many jurisdictions all over Europe, the true sale of the loan is not possible (due to data secrecy laws) or feasible from a cost perspective. So, in those cases there is an assignment of the loans to an SPV but the perfection of the sale is often postponed until various trigger events occur in order to avoid complicated borrower notification laws.

In the case of Commercial Mortgage-Backed Securities (CMBS), the legal structure depends on the transaction scheme. If the asset is comprised of a portfolio of bank-originated loans, then this case would be similar to the case of RMBS. However, if the transaction scheme is a Single Asset/Single Borrower transaction or a Real Estate-Backed WBS that gets structured into a secured loan, then the credit structure and exposure of the investors are very different.

Traditionally, from the US perspective a true CMBS was only considered to be a transaction securitising a diversified portfolio of commercial mortgage loans from different borrowers. The second case (secured loan) was not considered as a true Securitisation but rather as a corporate bond backed by real estate. This simple notion is missing the point, though. The strong popularity of Operating Company, and Single Asset/Single Borrower deals, and the evolution history of the European Securitisation market have

proven this wrong. The entire point of a Real Estate Securitisation – WBS or a Single Asset/Single Borrower CMBS – is that the structure of the deal assumes a bankruptcy of the borrower on the first day of the deal. If the deal is stress-tested and structured correctly, then the asset (commercial real estate or pubs) should pass cleanly through to the SPV in the transaction, be managed by a third party, and thus continue to produce cash that can pay off the debt to investors.

3. Local Framework for Securitisation¹¹³⁹

In the US exist various trust structures whereby the trust owns the assets such as the mortgage loans, and the investors have a direct ownership interest in the trust. This concept does not exist in Europe. The SPV in European transaction is simply a company, subject to normal company law in the respective jurisdictions, but restricted in activity and may be exempted from certain taxes.

Even though most countries have different approaches to legislating Asset-Securitisation, attempts are being made to facilitate the process, while simultaneously ensuring that the transactions are transparent and safe for investors. Some countries rely on older laws not explicitly addressing Securitisation, whereas other countries have been implementing legislation specifically aimed at controlling and ensuring sound Securitisation activity.

In the following part, the legal and regulatory environment for the leading Asset-Securitisation¹¹⁴⁰ and Real Estate Securitisation markets in Europe (as identified in Chapter 4.4.2.2) shall be delineated:

1. *United Kingdom (UK)*¹¹⁴¹

a. Regulatory Environment

In the UK it is not the issuing vehicles that are directly regulated but the originators. Thus, the relevant regulators play a key role in bringing transactions to the market. There are also listing

¹¹³⁹ Cf. Davidson, *et al.* (2003), p. 490.

¹¹⁴⁰ Excluding Germany.

¹¹⁴¹ Cf. Taylor (1996), p. 28.

requirements to meet (e.g. prospectus requirements), as most issues are listed in Luxembourg or London.

The key regulators of Asset-Securitisation transactions are the Bank of England (in respect of UK banks), the Building Societies Commission (in respect of building societies) and the Accounting Standards Board (for all UK companies, including banks and building societies). Over time, all regulators have produced detailed comment and regulations on Securitisation. However, traditionally they allow Asset-Securitisation to develop with few restrictions, creating a healthy regulatory environment.

The Bank of England has taken a neutral stance on Securitisation, neither encouraging, nor discouraging this form of finance. Nevertheless, it has been very effective in letting banks know where they stand. There has been a set of guidelines (1989, 1992, 1995) on all different asset classes and transaction structures.

b. Legal Environment

Generally, there are very few legal obstacles to completing Securitisation transactions in the UK, as explained in the upper part of this chapter. The flexibility of the UK's common law system has generally benefited the development of a strong Asset-Securitisation market. However, little of the legal theory used in many structures has been tested.

2. Italy

a. Regulatory Environment¹¹⁴²

Even though proposals for a Securitisation law were made in the mid-1990's, there were no laws that specifically addressed Securitisation in Italy until 1999. Existing Securitisation structures had been designed to address particular Italian tax and legal

¹¹⁴² Cf. Davidson, *et al.* (2003), p. 498.

issues, and had provided a good set of guidelines for following transactions, but without the definite commitment of the Italian government nothing came together.

In 1999, Italy implemented a Securitisation legislation that was solely targeted at different forms of lease payment Securitisation. Even though this was a step in the right direction, there were still several concerns regarding certain points not addressed or specified in the law. However, this has not stopped Italy from being the second most active market in Europe. With the strong involvement of the Italian Treasury in Securitisation deals, it is anticipated that future legislation will address the shortfall of the current framework

The Bank of Italy takes a supervisory role with respect to the activities of the SPV. As in other countries, the SPV in Italy is not allowed to engage in any other activities other than those performed to ensure sufficient cash flows to payoff the issued notes. In other words, the SPV can only purchase money credits, including future receivables resulting from normal course of business, issue notes, and ensure the payments on these notes.

b. Legal Environment¹¹⁴³

The main legislation governing Securitisation activity in Italy is Law No. 130 of April 30, 1999. The main purpose of the law was to set out the provisions for the creation of an SPV for Securitisation, guidelines for the transaction, and the SPV's relationship to other parties such as creditors and debtors. A Key issue in Italian transactions is the fact that the SPV is not by law constituted as a bankruptcy-remote entity, which constitutes an area that needs consideration in future legislation or amendments.

3. Spain

¹¹⁴³ Cf. Davidson, *et al.* (2003), p. 498.

a. Regulatory Environment¹¹⁴⁴

The regulators have generally encouraged the market's development, although without being regarded as being too positive. The main supervisory bodies are the Bank of Spain, the securities market regulator, and the Ministry of Finance – financial policy unit. The Bank of Spain produced 'Circular 4' on June 14, 1991 which allowed for the mortgage certificates (Participacion Hipotecarias – PH) to be classified as asset transfers and thus qualified for off-balance sheet treatment. Further clarification to off-balance sheets treatment for Securitisation transactions was issued by the Bank of Spain in 'Circular 7' of November 13, 1992.

b. Legal Environment¹¹⁴⁵

The law 19/1992 of July 7, 1992 (regime for property investment funds and mortgage securities), allowed for the creation of "*fondas de titulizacion hipotecaria*" or mortgage Securitisation funds. The main purpose was limited – to assist in providing cheaper loans for the acquisition of homes. This first step was insufficient to extend or apply the concept of Securitisation to loans other than mortgages. The royal decree-law 3/1993 enabled the government to extend the scope of the Securitisation system to other cover loans and credit rights. In 1994, provisions were introduced to allow for the adaptation of regulations and the legal system so that both Mortgage Securitisation Funds and Asset Securitisation Funds could be administered and managed. The latest royal decree 926/1998 provides for the regulation of non-mortgage assets through Asset Securitisation Funds and Securitisation fund management companies.

Although Securitisation laws go back a long time, only the Spanish regulation changes in May 1998 have achieved the goal to encourage

¹¹⁴⁴ Cf. Batchvarov, *et al.* (2001), p. 761; Taylor (1996), p. 44.

¹¹⁴⁵ Cf. Davidson, *et al.* (2003), p. 496; Jeffrey (2001), p. 34.

both the Securitisation of a wide range of assets and the participation of new banks in the Asset-Securitisation market.

4. The Netherlands

a. Regulatory Environment¹¹⁴⁶

The Netherlands Act on the Supervision of the Credit System from 1992, made all credit institutions subject to banking supervision and require a license. In 1993, a regulation was implemented allowing for exemptions to this law for SPVs that met certain criteria. Thereby, the regulators facilitated the Securitisation process. In September 1997, the Dutch Central Bank, which is the main Dutch banking regulator published a memorandum on the treatment of Asset-Securitisation and their supervision. This memorandum established conditions regarding the 'true sale principle', servicing issues, transparency of the transaction, credit enhancement, underwriting, and the administrative organization.

b. Legal Environment¹¹⁴⁷

Currently, there is no legislation in the Netherlands specifically aimed at Asset-Securitisation. This, in combination with the fact that assets such as consumer and mortgage loans or credits are considered receivables under Dutch law, results in the required application of the Netherlands Civic Code to Securitisation transactions. There are a number of aspects of the Dutch legislation that can create hurdles to a Securitisation transaction, although these can be surpassed with certain provisions. But it makes the process more complicated.

5. France

France, together with the United Kingdom, has one of the most advanced legislative frameworks when it comes to Securitisation.

¹¹⁴⁶ Cf. Batchvarov, *et al.* (2001), p. 784.

a. Regulatory Environment¹¹⁴⁸

Even though France was the second market in Europe to start Asset-Securitisation, it was a slow and hesitant start due to the regulatory framework. The French regulatory authorities, however, are now demonstrating a much more positive attitude towards the concept of Securitisation. Management companies in such transactions (Societes de Gestion) are regulated by the Commission des Operations de Bourse (COB). With respect to those, a decree was published on 01 July 1994, increasing the requirements for these companies – in terms of human resources, systems capacity, and capital. As a consequence, each transaction must receive COB approval before a public offering. The system is found frustrating by many market participants since it often interferes with transaction timing.

b. Legal Environment¹¹⁴⁹

The specific legal framework for Securitisation in France (Law No.88-1201) was introduced in December 1988. The initial law, completed by the decree of March 1989, has been further supplemented by numerous additional amendments that have continuously improved the framework and have clarified new concerns not previously addressed.

Under the law, the previous absence of the concept of trust under French law resulted in the creation of a special purpose vehicle to facilitate Securitisation, called “*Fonds Commun de Creances*” (FCC). The FCC is not a legal entity, but rather a co-ownership that owns a pool of receivables and issues certificates to investors. The vehicle is tax-efficient and is dedicated exclusively to Securitisation. The allowed assets for FCCs consist only of receivables and the cash flows derived from them.

¹¹⁴⁷ Cf. Davidson, *et al.* (2003), p. 494.

¹¹⁴⁸ Cf. Taylor (1996), p. 40.

The initial government-driven framework has been amended over time because shortcomings in the original framework became apparent. However, despite the detailed Securitisation provisions, including the various amendments, some grey areas have kept on existing that have needed clarification over the years.

Today, the legal and regulatory framework has been clarified so far that it is generally favouring the overall market's development. After a number of amendments, the framework has been adapted to fit the requirements of the international Asset-Securitisation market.

6. Luxembourg¹¹⁵⁰

Being a common jurisdiction for stock exchange listing purposes in Securitisation transactions, Luxembourg has always been a financial innovation-friendly country. However, it took until March 2004 for a comprehensive law – defining and regulating Luxembourg SPVs – to be put in place. The new Luxembourg legislation to facilitate Securitisation is a similar framework to the one in Belgium and France – although updated and simplified. It is simple, cost-efficient and effective, and thereby creates the opportunity for Luxembourg to become a popular jurisdiction for Securitisation SPVs.

a. Regulatory Environment¹¹⁵¹

Generally, there is no regulatory burden associated with the new Securitisation law. The Law draws a very clear line between those vehicles that engage in the continuous issuance of securities to the public and the others (incl. a one-off issuance of securities to the public, or the continuous issuance of securities not available to the public).

Only those vehicles, which continuously issue securities to the public are subject to prior authorisation and supervision by the

¹¹⁴⁹ Cf. Batchvarov, *et al.* (2001), p. 761; Davidson, *et al.* (2003), p. 495.

¹¹⁵⁰ Cf. Schmitt and Lazard (2004), p. 1; Trichet (2004), p. 1.

¹¹⁵¹ Cf. Schmitt and Lazard (2003), p. 298; Schmitt and Lazard (2004), p. 3.

financial sector regulator – Commission de Surveillance du Secteur Financier (CSSF). Regulation of Securitisation in Luxembourg is therefore kept to the minimum.

Prior authorisation by the CSSF is subject to the approval of:

- the articles of incorporation (company) or management regulations (fund) of the vehicle, and the articles of incorporation of the management company (fund);
- directors and reference shareholders of the special purpose company or management company ('fit and proper test').

The special purpose company and the management company must demonstrate that they have sufficient organisation and that they are financially sound.

b. Legal Environment¹¹⁵²

The Law of 22 March 2004 on Securitisation amended the law of 5 April 1993 on the financial sector, the law of 23 December 1998 creating a commission for the supervision of the financial sector, the law of 27 July 2003 on the trust and on fiduciary contracts, the law of 4 December 1967 on income tax, the law of 16 October 1934 on wealth tax, and the law of 12 February 1979 on value added tax.

Therefore the Luxembourg law on Securitisation has been designed to meet the expectations of the market by creating a dedicated, yet flexible legal, tax and regulatory environment in which participants are able to pick and choose the features they want to apply to each individual structure. The Law provides for added structural flexibility and for legal and regulatory soundness, by insulating Luxembourg Securitisation SPVs from bankruptcy

¹¹⁵² Cf. Ministry of Finance (2004), p. 1.

and regulatory risks. In this respect the law validates the "true sale" character of a transfer of receivables where such receivables, subsequent to their assignment to the Securitisation vehicle, are transferred to a third party or even the initial assignor. The Law excludes the re-characterisation of such transactions, for example as secured indebtedness of the initial assignor.

The Law classifies two forms of Securitisation vehicles: one is a special purpose company, the other a Securitisation fund managed by a management company. Both have different tax implications.

Key Legal & Regulatory Developments in 2003¹¹⁵³

The year 2003 has marked a key development in the legal and regulatory framework. It provided evidence that regulators and legislatures are paying greater attention to the growing acceptance of Asset-Securitisation in the market. In Italy, for example, legal flaws in the lease Securitisation market were expediently addressed by a change in the law.

But more fundamentally, legislators and policy makers started to accept the benefits of Asset-Securitisation to the credit economies in Europe. This has been underlined by the talk of a pan-European mortgage agency resembling that of the US (the European Mortgage Finance Agency or EMFA) and the True Sale Initiative in Germany.

Most legal developments entailed refinements in existing Asset-Securitisation frameworks to accommodate changes in structures, collateral or issuer types. The only exception was Greece that implemented a totally new Asset-Securitisation legislation.

4.4.3.2 Tax Environment

As the regulatory and legal environment, the tax environment has also been a withholding factor for the evolution of a standardized Pan-European Asset-Securitisation market.¹¹⁵⁴

¹¹⁵³ Cf. Rajendra, *et al.* (2004c), p. 16.

In general, Securitisation structures should aim to be tax-neutral and the special purpose vehicles should be tax transparent. However, due to the number of jurisdictions, the pan-European market is one of the most complex as there exist local regulatory, legal, tax and accounting regimes. Even though there exist proposals to harmonise European tax, regulatory and accounting guidance to produce a pan-European framework, at present the implications for Securitisation in Europe are many and varied and also subject to considerable change and evolution.

There are a number of fairly generic tax issues such as withholding tax on interest payments, as well as specific tax issues like stamp duty on assignment of receivables, and sales tax on the sale of receivables. However, in most cases withholding tax will not be charged where there are double taxation treaties. Above that a key issue for the originator is whether the transaction will be seen as a sale or financing. This is usually dependent on the accounting treatment and will lead to different sets of tax implications.¹¹⁵⁵

In achieving a tax-neutral structure there are two key factors that should be considered under any tax jurisdiction:

- The existence of the issuer and the intended contracts to be entered into should not in themselves lead to additional tax costs.
- Sufficient research and tax planning should be undertaken into the tax structures to be implemented, as it is likely that these will be challenged by the tax authorities.

As there are different tax regimes in different countries, the crucial characteristics of the tax environment for the leading Asset-Securitisation¹¹⁵⁶ and Real Estate Securitisation markets in Europe (as identified in Chapter 4.4.2.2) shall be delineated in the following:

1. *United Kingdom (UK)*¹¹⁵⁷

¹¹⁵⁴ Cf. Van Drunen and Bull (2003), Interview 20, p. 554.

¹¹⁵⁵ Cf. Jeffrey (2001), p. 26.

¹¹⁵⁶ Excluding Germany.

¹¹⁵⁷ Cf. Taylor (1996), p. 29.

As a general rule, agencies look for transactions to be tax neutral for an originator. Issues in tax law have raised a number of difficulties and concerns for UK Asset-Securitisation transactions. Examples are:

- extracting profit without being assessed to Corporation Tax twice
- preserving MIRAS entitlements
- predetermining the tax status of an issuer (investment or trading company status)
- value added tax
- avoidance of stamp duty
- the statutory indemnity issuers might have to the Inland Revenue for the tax liabilities of other companies.

2. Italy¹¹⁵⁸

In Italy, tax laws generally provide for a range of withholding taxes on interest and other payments. To get around this problem, transactions have used off-shore withholding tax-exempt conduits. Registration tax (stamp duty) is payable on asset transfer. However, execution of the transfer outside of Italy can avoid this cost. An exchange of letters (offer letter and acceptance letter) can also be used.

3. Spain¹¹⁵⁹

European resident investors in bonds issued by a Spanish special purpose company are exempt from withholding tax on payments of interest on the bonds. Only if they cannot certify that they are resident in a European Union country they have to pay withholding tax.

4. The Netherlands¹¹⁶⁰

The Netherlands has traditionally been considered a favourable jurisdiction for setting up SPVs and Securitisation transactions. The country has

¹¹⁵⁸ Cf. Taylor (1996), p. 52.

¹¹⁵⁹ Cf. Taylor (1996), p. 44.

¹¹⁶⁰ Cf. Crans, *et al.* (2003), p. 301; Kellermann (2001), p. 95.

favourable withholding tax treaties on different kinds of payments and there is no withholding tax on interest. Transaction participants are also able to obtain advance rulings from the relevant tax authorities.

5. France¹¹⁶¹

Generally the French tax environment is favourable, as the French FCC Vehicle is tax-transparent and does not allow for double-taxation. Apart from only withholding tax on interest payments may pose a problem to overseas investors in the French market.

6. Luxembourg¹¹⁶²

The general tax environment has traditionally been very attractive to foreign Securitisation issuers, as there is a moderate tax pressure, absence of withholding tax on interest payments, no thin capitalisation or debt/equity ratio for the Luxembourg SPV and an extended network of treaties to avoid double taxation available.

By the new Securitisation law issued in March 2004, these features have been enhanced with further tax advantages for Luxembourg Securitisation SPVs, including:

- An absence of withholding tax on dividend payments;
- VAT exemption of management fees;
- wealth tax exemption;
- fixed capital contribution duty (maximum 1.250 €);
- investment fund-type income tax exemption available if the fund structure is chosen.

This leads to very favourable tax environment that results in Securitisation companies only being subject to regular corporate income tax, which does not result in a significant tax liability, and to a fixed capital contribution duty (maximum € 1.250). Securitisation funds, on the other hand, bear absolutely

¹¹⁶¹ Cf. Davidson, *et al.* (2003), p. 495.

¹¹⁶² Cf. Schmitt and Lazard (2003), p. 297; Schmitt and Lazard (2004), p. 3.

no Luxembourg tax other than the fixed capital contribution duty (maximum 1.250 €).

4.4.3.3 Accounting Environment

As with the case of the tax environment the accounting environment has also be a hindrance for the free evolution of pan-European Asset-Securitisation. Although there are common international accounting guidelines in the making that will also apply to Asset-Securitisation in Europe, until now there have been multiple jurisdictions with multiple implications for accounting treatments. In some countries there have been favourable laws and in some countries there have been unfavourable laws.

As the global market for Asset-Securitisation continues to push out its boundaries into new jurisdictions, and volumes and complexity increase, accounting and tax treatments become an increasingly important feature to consider when determining the appropriate structure. It is obviously important to achieve the correct accounting treatment. However, but to determine whether the accounting treatment is critical to a particular transaction or not, will proof if it is a deal killer or not. In order to understand this it is important to recognise the originator's reasons for the entering into a Securitisation transaction. These reasons are usually many and varied, and may not just be simply about removing assets from the statutory balance sheet. For regulated entities, often the main driver is to free regulatory capital by obtaining off-balance sheet treatment from the regulators. Other originators may simply be seeking a cheaper or more efficient source of finance, rather than necessarily looking to move assets off-balance sheet. Alternatively, the key driver may simply be the release of economic capital or to create a presence in the marketplace.¹¹⁶³

So, the accounting treatment may be important for some originators and less important for others. However, during the course of the development of the market over the different jurisdictions, accounting has played a major role. Following the harmonization pressure in the European Union, the new

¹¹⁶³ Cf. Jeffrey (2001), p. 25.

International Financial Reporting Standards (IFRS)¹¹⁶⁴ will become the leading accounting framework for Asset-Securitisation transactions in Europe. Those shall be delineated in the following.

International Financial Reporting Standards (IFRS)

Accounting standards set the rules by which an institution can account for its assets, and determine whether those assets are either on- or off-balance sheet and the profits that those assets generate. Even though until now every country has had its own individual accounting standards, the International Financial Reporting Standards (IFRS) – formerly known as International Accounting Standards (IAS) – will become the European Union standards in 2005.¹¹⁶⁵ Most large corporations in Europe have already prepared themselves for the new regulations and are now looking at any direct implications with regard to Securitisation, specifically the accounting treatment of SPVs of the originating company.

The relevant IFRS standards concerned with Asset-Securitisation, SPVs, True Sale and Consolidation are:¹¹⁶⁶

- IAS 27:¹¹⁶⁷ Consolidated Financial Statements and Accounting for Investments in Subsidiaries.
- SIC: 12: Standing Interpretation Committee on Consolidation of Special Purpose Entities.
- IAS 39:¹¹⁶⁸ Financial Instruments: Recognition and Measurement.

The main issue for concern is IAS 27, and its interpretation SIC 12, which relate to the implicit requirements on consolidation of SPVs by the originating

¹¹⁶⁴ For a more thorough analysis of the international accounting standards, confer Achleitner and Behr (2003).

¹¹⁶⁵ Cf. Parolai and Paper (2003), p. 14.

¹¹⁶⁶ Cf. Barnes (2003), p. 21.

¹¹⁶⁷ For comparison purposes, the relevant standards in the United States are FIN 46, and in the United Kingdom FRS 5 and FRS 2.

¹¹⁶⁸ For comparison purposes, the relevant standards in the United States are FAS 140, and in the United Kingdom FRS 5.

company. There are two tests determining if an entity needs to be consolidated or not:

1. Ownership test
2. Control test

In accordance with most regulations of consolidation, IAS 27 determines that ownership of more than 50 percent of the voting rights of the entity automatically implies that it should be consolidated with its parent company (Ownership test).

However, according to IAS 27 and SIC 12, ownership alone is neither sufficient nor necessary to determine whether to consolidate an SPV or not. Instead, the second test focuses around the concept of "control" of the entity. IAS 27 defines control of a company as *"the power to govern the financial and operating policies of an enterprise so as to obtain benefits from its activities."* IAS 39, control is defined as *"contributing to or benefiting from the risks and the rewards of the SPV,"* implying that control is not necessarily determined by ownership or voting rights. In general, derecognition or partial derecognition can be achieved under IFRS standards, but SIC 12 generally requires the SPE to be consolidated. Therefore, these rules challenge the off-balance-sheet objective of a typical Securitisation.¹¹⁶⁹

An exception to the above rules are multi-seller conduits – SPVs created and sponsored by one entity, and used by several originators. They appear to provide for an off-balance-sheet solution under the IAS regulation, which mainly reflects the fact that the conduit is under "control" of the sponsor, and not the originators.¹¹⁷⁰

There is no doubt about the fact that going forward the somewhat stricter accounting rules must be taken into account during the structuring of a Securitisation. The new IAS rules clearly indicate a need to revise the setup of each transaction individually. In this respect the arranger plays a crucial role in discussing the structure in detail with the originating company's audit firm in

¹¹⁶⁹ Cf. Davidson, *et al.* (2003), p. 501.

¹¹⁷⁰ Cf. Barnes (2003), p. 21.

order to make sure that they understand and agree to any given structure, and propose mitigation for satisfying the auditor, if necessary. Future Asset-Securitisation transactions will demand careful arranging and structuring in order to achieve off-balance-sheet treatment of assets sold to an SPV, if that is the motive. The IAS regulations clearly indicate that there is not one definite answer on when to consolidate an SPV and when not.

4.4.3.4 Rating Environment

“The rating process is of vital importance. Without the oversight of the public rating agencies like Standard and Poor’s and Moody’s, I do not think the deals would have held up during the period of stress. Without agency insistence, the deals would not have been structured with adequate coverage to make it through the catastrophic-risk period.”¹¹⁷¹

As has been demonstrated above, the rating Environment has also played a crucial role in the evolution of the European Asset-Securitisation market. But it was not only the oversight of the rating agencies and their rigorousness that was important for the development of the market. It was also the agencies’ role as a standard setting body for transaction structures that made them so valuable. This has been especially true for the commercial real estate segment.

From the start, all of major rating agencies have been involved in rating UK commercial real estate transactions. Due to the heterogeneity of the European countries, the agencies had found that they had to adjust their models in each European real estate market to reflect the term of the lease, the sharing of property obligations between tenant and landlord, the mortgage security, and the strength or volatility of the real estate market. In the case of the UK, the long lease terms have caused most CMBS issues to be structured to fully amortize during the tenant's lease. Hence, the agencies had to focus on the tenant default probability, rather than on the balloon refinancing risk.¹¹⁷²

Due to not widely available default and loss data in most European countries it became difficult for the agencies to predict future portfolio defaults and losses.

¹¹⁷¹ Myerberg (2000), p. 146.

¹¹⁷² Cf. Wheeler (2001a), p. 759.

Thus without historical data, they used the tenant rent roll to project a transaction's cash flow under a set of conditions such as a triple-A economic-stress scenario, a double- A stress scenario, a single- A stress scenario, and so on down the rating scale. The triple-A stress scenario had the toughest set of cash flow projection assumptions for tenant retention, rental rate decline, releasing costs, property vacancy, and property underlying value. Similar to North American guidelines, the rating agencies used a benchmark such as the 1990-1992 recession in the UK, which may be considered to be a single-A stress scenario. The agencies then geared their stress assumptions up from 1990-1992 distressed property parameters using a commercial property valuation data source such as the Investment Property Databank. The resulting stressed cash flows were compared to each loan's required mortgage debt service to determine if a property has sufficient cash flow to service the mortgage. Using this methodology, the rating agencies determined the absolute amount of triple-A proceeds that they considered to be triple-A recession-proof using their triple-A recession assumptions; the same analysis was performed for each additional class.¹¹⁷³

North American CMBS rating agency methodology, such as stressed debt service at an expected refinance constant and stabilized loan-to-value calculations, are not commonly used in the European CMBS market. This is mainly because the bonds are usually structured to match amortization with the longer-term real estate leases. In the case of a Credit Tenant scenario, the rating agency simply adjusts the property's default probability to reflected corporate default rate of the underlying tenant rating.¹¹⁷⁴

4.4.3.5 Investor Environment

Influence of Investor Environment on early UK developments

The primary goal of Asset-Securitisation from an investor's perspective is to broaden the investment asset base available to investors. If institutional

¹¹⁷³ Cf. Wheeler (2001a), p. 759.

¹¹⁷⁴ Cf. Wheeler (2001a), p. 759.

investors are willing to buy those assets in a specific market sector, then this investment instrument will be successful.¹¹⁷⁵

This is what happened in the UK in the mid-1980's, when Residential Mortgage-Backed Securities first came to the market. Those securitised assets (residential mortgages) offered good yields on high-quality assets, liquidity, diversification, and potential trading profits. In return, such appealing values attract new sources of capital to this new market sector, and hence, lowering borrower costs and expanding the base market. As this has occurred in the United States, it also happened in the United Kingdom and later in the rest of Europe, as well. Even investors that had previously not invested into real estate related assets were attracted to the UK RMBS and later CMBS market. Investors came from outside the UK, as well as from within. It proved itself to be an international market with high potential for diversification. Without investor acceptance it wouldn't have come that far.¹¹⁷⁶

As the new product spread from the UK over to Europe, Europe the different local environments became a challenge for arrangers as well as investors. As they embarked across continental Europe, they often encountered challenges requiring expanded market-level due diligence, greater legal due diligence, and new ways of structuring forms of security to address differing tax regimes and country-specific enforcement procedures. With its great diversity of jurisdictional issues and submarkets, Europe has stayed a challenge for CMBS lenders, issuers and investors. It took a great amount of investor education to open new segments in European sub-markets. However, the advantages of Asset-Securitisation persuaded investors to invest. As they expanded their experience base, deal flows increased and obstacles and timing delays decreased.¹¹⁷⁷

Current Investor Environment

Asset-Securitisation transactions more and more profit from investor acceptance as the current investor environment is increasingly driven by the

¹¹⁷⁵ For further information on how investors choose their investment markets confer Schiereck (1995).

¹¹⁷⁶ Cf. Myerberg (2000), p. 147.

¹¹⁷⁷ Cf. Hunt (2004), p. 2.

quest for yield-pickups compared to traditional corporate bonds. Asset-Securitisation transactions, for example, on the 'BBB' level offer a yield-pickup of 120 to 140 basis points to swaps, whereas the yield-pickup of corporate bonds of the same investment grade only amount to 70 to 80 basis points. The overall Asset-Securitisation market has enormously profited by this during the last few years and it will keep on doing so in the future. Especially, the RMBS and CMBS market that both offer superior collateral for Asset-Securitisation transactions have profited from this.

However, every transaction is unique and has a unique risk-profile. Apart from that, the liquidity in those instruments is only acceptably high in the 'AAA' segment, as three quarters of the overall Asset-Securitisation market is made up of 'AAA' tranches. Below 'AAA' there is only a small, but very illiquid market that incorporates large transaction costs.¹¹⁷⁸

So, **investor motivation** is mainly driven by four objectives:¹¹⁷⁹

- The search for relative yield advantage to alternative investments.
- Investment opportunities for high quality assets and structural benefits.
- The allocation to property debt without need for origination & servicing (with respect to real estate).
- Risk diversification from other investment products.

Generally, investor's can be segmented relative to their **different risk/return profiles** – rating preference:¹¹⁸⁰

- Aaa/AAA – Risk averse investors only permitted to buy Aaa/AAA (e.g. Structured Investment Vehicles).
- Aa/AA and A/A – Investors looking for security first with some yield pick-up. This category is mostly made up of insurance companies, banks, pension funds.

¹¹⁷⁸ Cf. Weber (2004), p. 3.

¹¹⁷⁹ Cf. Vrensen (2003b), p. 40.

¹¹⁸⁰ Cf. Vrensen (2003b), p. 38.

- Baa/BBB – Investors are looking for yield pick-up (investment managers).
- Ba/BB – These tranches are less suitable for investors with risk based capital reserve requirements. In CMBS, investors include property investment companies and property specialists.
- Unrated or B-Piece Buyers – Investor need to have significant ability to analyse and manage risk. This category is dominated by Private Equity/Hedge Funds that have adequate resources and know how.

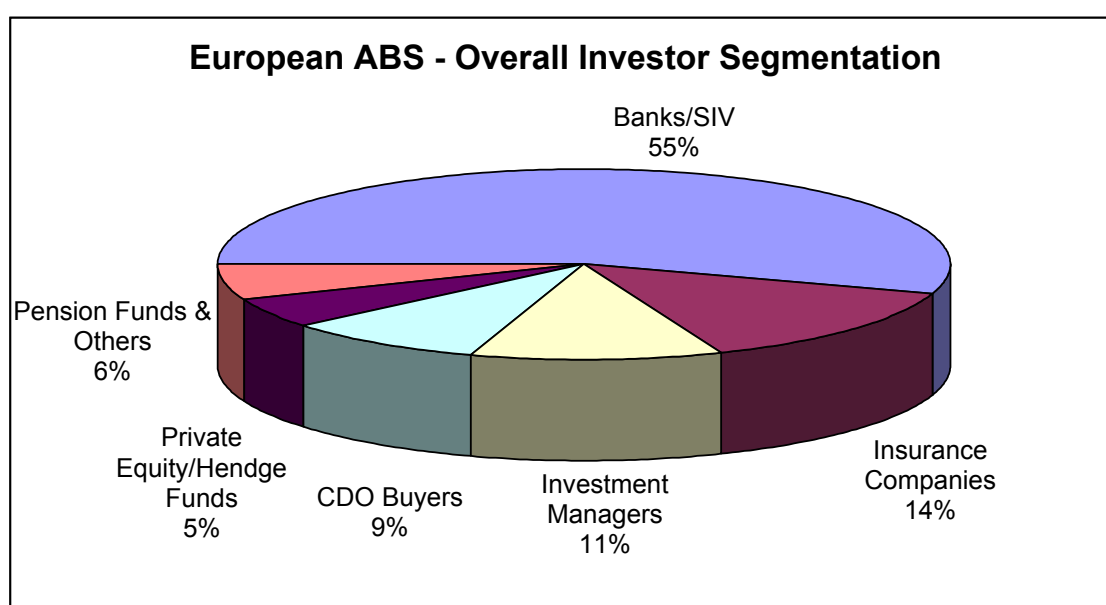


Figure 31: Asset-Backed Securities – Investor Segmentation

Source: Moody's ¹¹⁸¹

Figure 31 shows the overall segmentation of investors in European Asset-Securitisations. Banks and Structured Investment Vehicles (SIV) make up the biggest investor group. As banks are also the biggest originator of asset collateral, they best know the quality of the transactions and usually buy back a certain part of their own issuances. Banks are followed by insurance companies, which follow the same goals as pension funds: long term investments to match their asset-liability base. Structured Bonds under Asset-Securitisation transactions satisfy that need. The third main category (investment managers, CDO buyers and Private Equity/Hedge Funds) are usually investors into the middle and lower quality tranches. They are looking

¹¹⁸¹ Cf. Vrensen (2004), p. 42.

for investment arbitrage and relative value investments. Especially CDO buyers are buying up lower rated tranches in order to repackage those into new CDO bonds and thereby creating an arbitrage through structuring.

4.4.3.6 Real Estate/Local/Cultural Environment

Local/Cultural Environment

As in the case of Singapore and the USA, the Real Estate Environment had an important impact on the timing of the inception of the market. In Europe, the situation in the UK residential mortgage lending market in the mid to late 1980's led to start of the Mortgage-Backed Securities market. It was also the real estate lending environment in the beginning of the 1990's that led to the evolution of the Commercial Mortgage-Backed Securities market. The Underwriting craze in the late 1980's and the economic and real estate down-cycle in the UK in 1989-1992 led to higher lending conditions and to the need for certain borrowers to seek other sources of financing. The move towards capital-market oriented financing was inevitable, as enormous financing benefits (arbitrage) could be achieved.¹¹⁸²

Local/Cultural Environment

As opposed to the case of the US, the local and cultural environment played an important role in the evolution of the European Asset-Securitisation market. As demonstrated in Chapter 4.4.3.1, there are as many legal, regulatory and tax environments, as there are countries in Europe. All the environments are subject to local peculiarities in each European country. Also the evolution of Asset-Securitisation in each country was influenced by the local and cultural environment. Whereas the evolution in the UK was driven by the US and investors in the issuance were global institutional investors, the evolution in France was coined by local issuances targeted at French investors.¹¹⁸³ The evolution in Italy on the other hand was initiated by the government seeking to reduce its national deficit.¹¹⁸⁴

¹¹⁸² Cf. Myerberg (2000), p. 148.

¹¹⁸³ Cf. Myerberg (2000), p. 142.

¹¹⁸⁴ Cf. Anonymous (1998a); Anonymous (1999c).

4.4.4 Core Determinants

The graphs and segmentations displayed in this chapter (Figure 32 - Figure 44) are based on the European Commercial Mortgage-Backed Securities transaction list introduced in Chapter 4.4.2.3. As explained above, the data source used is based on raw data supplied by Deutsche Bank Securitisation Research, Moody's CMBS Research and JP Morgan Securitisation Research.

4.4.4.1 Borrowers

The biggest borrowers or sellers/originators of assets in the European market are Corporates and Governments. These deals are usually Single Asset/Single Borrower deals in which governments or corporations try to monetize on their real estate. Conduits (usually set up by investment banks) and Banks make up the third and fourth biggest category. As those deals are mainly commercial mortgage loan deals, they function as funding instruments for the originators new loan origination. The next biggest category is Real Estate Investors and Real Estate Developers that use CMBS as a means of funding their respective investments or developments of real estate. The smallest category overall is Housing Associations.

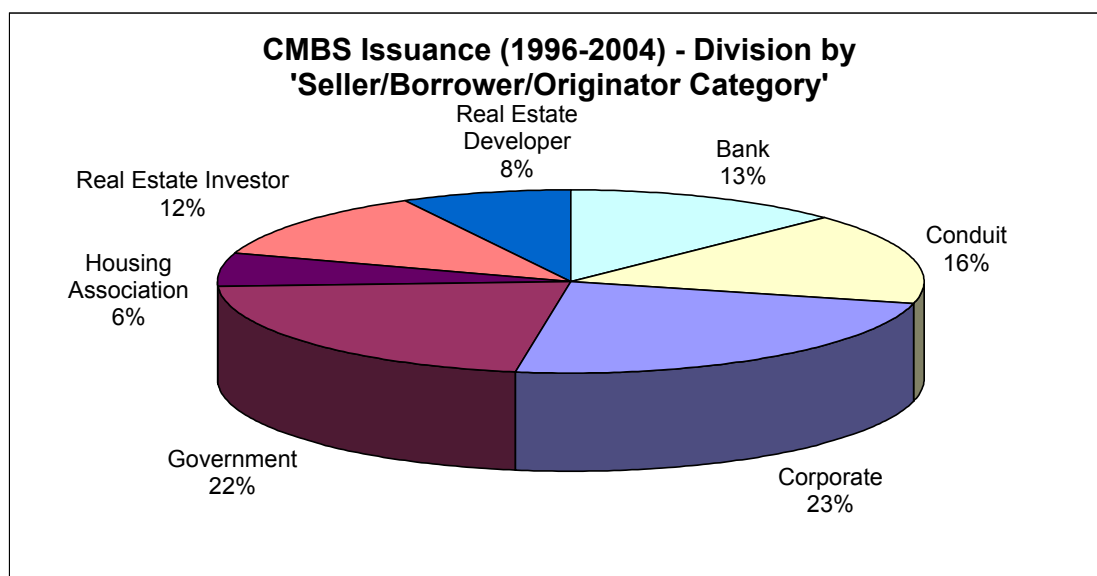


Figure 32: Distribution of Originators in European CMBS

Source: Authors Compilation¹¹⁸⁵

The following statements explain Figure 32:

¹¹⁸⁵ The data used to compile the CMBS New Issuance Volumes (1997-2004) is based on raw data supplied by Deutsche Bank Securitisation Research, Moody's CMBS Research and JP

- The corporate category primarily stands for originators in operating company deals as well for corporate Sale-Leaseback.
- Governments in Europe play a different role in the Asset Securitisation market than does the US government. The US government is a large player in the U.S. market given its indirect support of Fannie Mae and Freddie Mac through their unique status as government sponsored enterprises (GSEs). European government, on the other hand, involve themselves in a more direct way because there are certain governments that securitise their own assets from residential to commercial real estate, to lottery revenues, and even future tax revenues. Government Securitisation besides RMBS have often been the catalyst for making Asset-Securitisation popular as a funding method within their respective countries. From a real estate perspective the best example is Italy. The government has securitised rental income and future revenues from privatisation of residential units leased to government employees (S.C.I.P. 1 & S.C.I.P. 2). On the same page, the British government has spun off its military housing by selling it to Annington Property Finance that has funded the deal through the capital market (Annington Finance No.1 & No.4). So governments play a huge role as direct originators of transactions. This trend will keep on going strong as governments (including states, counties and municipalities) all over Europe are subject to decreasing tax revenues, higher deficits and increased spending. This will only be fundable if their real estate gets sold or the revenues securitised.
- Conduit and Bank originated transactions are multi-borrower transactions. Traditionally, this segment has been small as discussed above, but in the future especially the Conduit business is expected to rise.
- The difference between Real Estate Investor and Real Estate Developer is the underlying real estate. In the case of the underlying real estate

being a development that has not yet been finished the company is categorized as a developer. If the development has been finished and has become investment property the originator is considered an investor. Therefore, in some cases companies like 'British Land' are considered developers and in other cases the same company is considered an investor. This makes a difference as the risk inherent in development transactions is extremely higher than in investment property transactions. Thus, the most development transactions have been big single properties that have been leased to one tenant that is taking the risk. So, this category primarily relates to deals like 'BBC Pacific Quay Finance' – a property built for BBC, who also guaranteed the transaction. Those deals are primarily based on credit tenant lease agreements and are usually built-to-suit deals.

- Housing Associations have been a strong issuer of CMBS backed by housing association loans and social housing. Especially, during the first phase of the market they have been strong issuers. The small overall share is due to a decreasing number of transactions in recent years.

Interestingly the CMBS market has not been dominated by banks as compared to the overall Asset-Securitisation market. This leads to the conclusion that the drivers for the market are different than for the overall Asset-Securitisation market. The drivers in the CMBS market are, thus, not the relief of regulatory capital for banks but the diversification of funding sources and the need for price efficient capital markets funding for corporations, governments and real estate players. This leads to the conclusion that for this market to develop further the environment for those players has to be made more attractive as opposed to supporting bank-originated mortgage loan Securitisation as has been done in the case of Germany (True Sale Initiative).

4.4.4.2 Assets

The Asset analysis for the European Real Estate Securitisation market will be comparable to the analysis in the Singapore part. Four different attributes of the transactions with respect to the asset in the transaction will be analysed:

1. The Type of Asset.

2. The Cash Flows Supporting the Bonds.
3. The Type of Collateral/Security in the transaction.
4. The underlying Property Type.

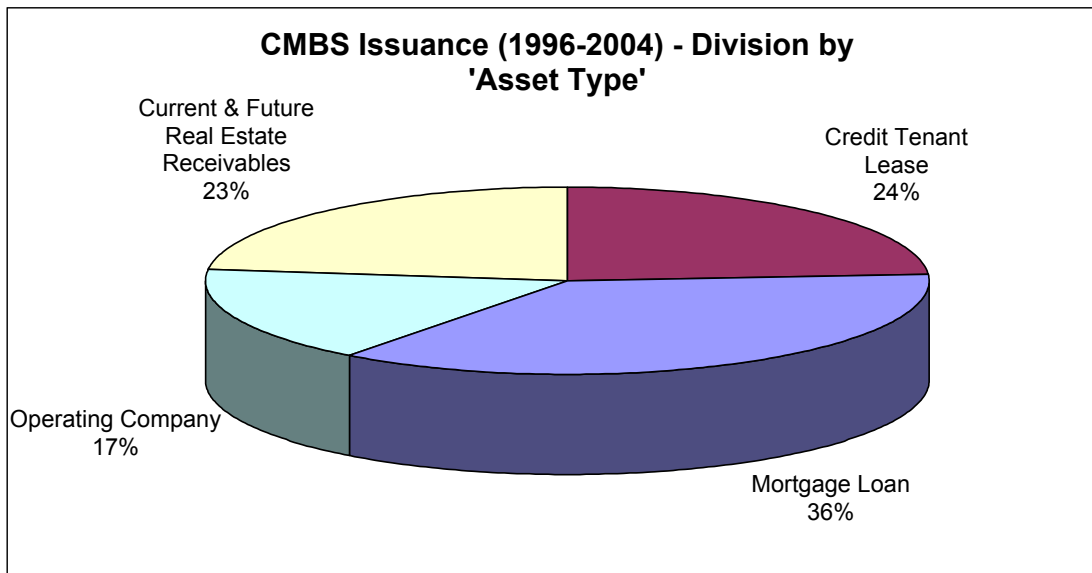


Figure 33: Distribution of Asset Types in European CMBS

Source: Authors Compilation

The biggest category of assets underlying Real Estate/Commercial Mortgage-Backed Securitisation transactions is '**Mortgage Loans**' (36%). This asset type primarily relates to the Portfolio-CMBS (synthetic and true sale) and European Conduit CMBS transaction schemes. Those multi-borrower deals are based on portfolios of mortgage loans that have either been originated for the sole purpose of Securitisation (Conduit) or that have been accumulated over time and that have by chance qualified for Securitisation (Portfolio-CMBS). The focus in those transactions is rather the performance of the loans and the composition of the portfolio of loans than the quality and the tenants of the respective properties.

The '**Credit Tenant Lease**' (24%) asset category relates to deals, where there is a single tenant in the building that gets financed through a Real Estate Securitisation. The lease payments of this credit tenant (i.e. the credit tenant lease) constitute the asset that gets rated and securitised. This type of financing is often used by supermarket chains or big corporations with investment grade credit that use Securitisation to either finance their expansion or to spin-off their real estate.

‘Current and Future Real Estate Receivables’ (23%) represent the asset category for transactions on single properties or multiple properties by a single borrowers. The buildings usually represent trophy properties with a mix of different, well situated tenants that all have different lease contracts and thus different lease maturities. So the focus does not lie on the credit of the tenants but rather on the quality of the property and its current and future cash flow generation potential.

‘Operating Companies’ (17%) or the ongoing business operations of a real estate-backed business represent the asset category for Real Estate-Backed Whole Business Securitisations. The real estate in those cases is not the asset, but rather the collateral of the transaction because the business would not exist without the real estate (airports, health care facilities or theatres). However, what gets securitised are the cash flows from operations resulting out of the real estate.

The example of operating companies or WBS best explains the difference between the ‘Type of Asset’ and ‘Cash Flows Supporting the Bonds’. In the Securitisation industry this would not be distinguished, but in order to argue the case for Real Estate Securitisation it is important to make and to explain that distinction. The type of asset relates to the asset that gets sold or transferred (in one way or another) to the special purpose vehicle, whereas the cash flows from those assets are needed to support the bonds. Essentially, in every Asset-Securitisation it is the cash flows from assets that get securitised, but it is the assets that get sold to the capital market investors (through the SPV in the form of bonds). So, it is important to understand and distinguish where the cash flows originate from.

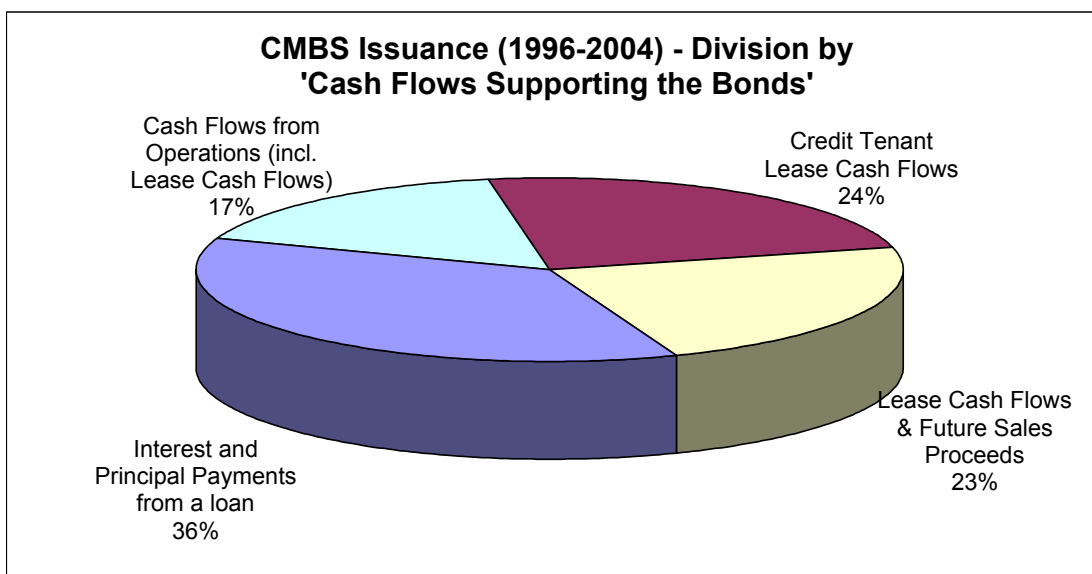


Figure 34: Cash Flows Supporting European CMBS Issuances Source: Authors Compilation

The shares of the different cash flow types are the same as in the 'Asset Type' analysis as the cash flows are linked to the respective assets. Therefore bonds that are backed by mortgage loans get serviced through **interest and principal cash flows** resulting out of those loans. Analogous to that cash flows resulting out of **lease cash flows** and **future property sales proceeds** service bonds that are backed by Credit Tenant Lease or other Real Estate Receivable assets. **Cash flows from operations** are the basis for Whole Business Securitisations.

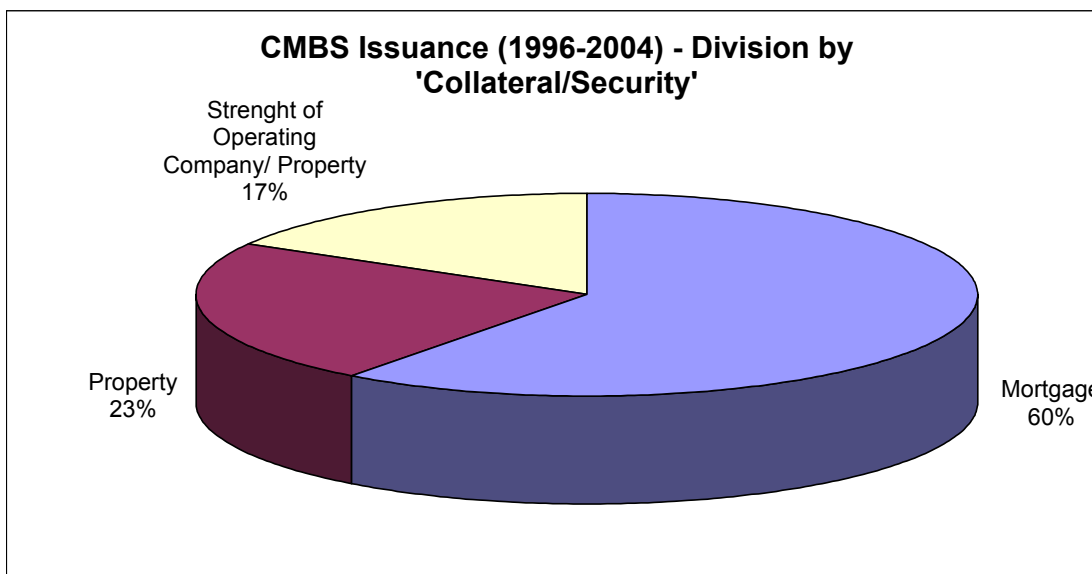


Figure 35: Distribution of Collateral/Security in European CMBS Source: Authors Compilation

As described in one of the earlier chapters there exists a difference between asset and collateral in Asset-Securitisation transactions. For the case of Real

Estate Securitisation transactions the question is: What is the investor's collateral in the transaction?

This usually results out of the assets that get securitised and it links to the problem complex of originator or borrower bankruptcy. In most cases relating to real estate the additional security of the investor is a '**Mortgage**' over the property. A mortgage lien is a traditional securing mechanism in real estate lending that does not exist in other asset classes. What this means is that it represents the most cost efficient way to secure a lenders loan. For Real Estate Securitisation, where the asset is a credit tenant lease of future real estate receivables, the capital market investor wants to have a security in the case of bankruptcy. Depending on the deal structure, this can be the property itself or it can simply be a mortgage over the property. If the assets are residential units that get privatised over a certain amount of time (e.g. S.C.I.P. 1 & S.C.I.P. 2), then the '**Property**' gets transferred to the SPV. However, if the assets are one commercial property complex (Broadgate) that is leased out to a multitude of tenants for a long period of time and that stays in the estate of the borrower thereafter, it does not make any sense to transfer the property, due to transfer tax. So, in this case a mortgage over the property serves as additional collateral to the investors. In those cases the cash flows from the property are often structured into a real estate loan or a credit tenant loan for multiple tenant or one single tenant, respectively.

As described above, the asset of Real Estate-Backed WBS is the operating company, and hence, the security to the investors are two things. '**The Strength of the Operating Company and the Property**' that is used for generating cash flows from operations. So, in this case it is a combination between the value of the property and the value of future cash flows.

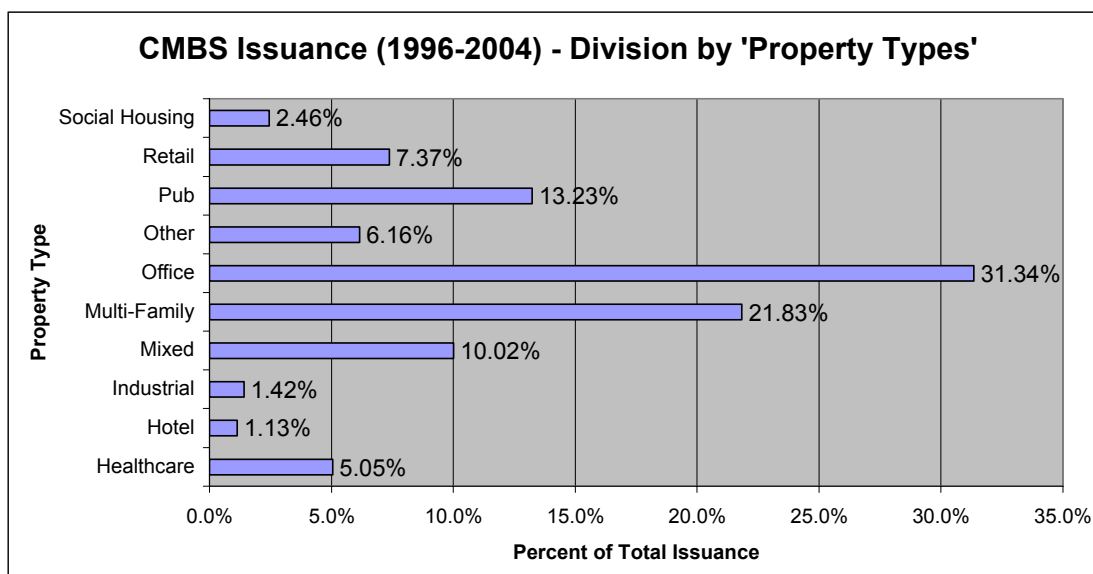


Figure 36: Property Type Distribution in European CMBS (in %) Source: Authors Compilation

From a property perspective, the three strongest property types in European Real Estate and Commercial Mortgage-Backed Securitisations is **'Office'**, **'Multi-Family'** and **'Pubs'**. The explanation for this is simple. Most Single Asset/Single Borrower transactions in Europe are office-related, all of the Housing Society transactions were **'Multi-Family'** and **'Social Housing'** related, the big S.C.I.P. transactions were primarily Multi-Family and the Real Estate-Backed Whole Business Securitisations were primarily backed by pub operations. The next biggest category is **'Mixed'** properties, which relates to most Portfolio-CMBS transactions that securitised mortgage loans from different jurisdictions and different property types. **'Retail'** was stronger than **'Hotel'** and **'Industrial'** for the reason of the big shopping centre Securitisations (Trafford Centre, Meadowhall and Centro) and the supermarket Credit Tenant Loan Securitisations (Sainsbury's, Tesco and Marks & Spencers). For **'Healthcare'** the same counts as for pubs, healthcare facilities were the second biggest property type in operating company deals.

A selection of different Real Estate Securitisations with different assets displaying the broad variety of assets will be delineated in the following:

Annington – Military Housing

Annington Property Limited (APL) was formed in 1996 to purchase from the Secretary of State for Defense of the United Kingdom certain interests in part of the Married Quarters Estate. APL purchased the units with a combination of

equity, bank debt and a secured loan provided by Annington Finance No.1. Annington Finance No.4 is being established to refinance the existing bank debt and to provide APL with working capital. APL repays the secured loans to Annington finance No. 1 & No.4 with the following sources of funds: (1) a portion of rental payments made by the Secretary of State for Defense of the United Kingdom, (2) proceeds from disposals of properties over 25 years, and (3) refinancing in 25 years, of the remaining properties.

Unite Finance One – Student Housing

There was a student accommodation Securitisation in 2002 (Unite Finance One plc). The Unite Group raised £273 million primarily through rental income from the Group's properties, for the purposes of debt refinancing, working capital and future property development. The deal was secured by the properties in the portfolio.¹¹⁸⁶

Canary Wharf – Office Development

In late May 2000, the second Canary Wharf transaction introduced another innovative structure that has become a benchmark for Real Estate Securitisations. Canary Wharf II followed the initial £555 million transaction by the Canary Wharf group in 1997 which, at the time, was the world's largest Securitisation of a single property. The £ 475 million multi-currency four-tranche structure in the Canary Wharf II transaction incorporates variable funding notes that effectively operate as a revolving loan facility. The underlying asset of the deal was the development property and its future rent receivables.

Italian Treasury (S.C.I.P. 1 & S.C.I.P. 2) – Government Real Estate (Housing and Commercial Real Estate)

In 1999, the Italian Treasury initiated a € 3.5 bn Real Estate Securitisation that was the first under a government programme to dispose of real estate with an estimated book value of between €15bn and €30bn. This Securitisation, which was launched late 1999, involved the sale of a portfolio comprising 27,000 government-housing properties to a special purpose vehicle owned by the Italian treasury. The sale was financed with a bond offering, through which the

¹¹⁸⁶ Cf. Weiffenbach and Ghali (2003), p. 248.

government raised 75% of the assets' gross book value with 'AAA' debt. Bondholders are entitled to rents on the properties, but will be repaid primarily from the proceeds of selling the flats. The deal was followed by a similar deal in 2002, S.C.I.P. 2. The transactions were just the latest in a series of Securitisations designed to reduce Italy's debt burden to meet the Maastricht criteria for European Monetary Union.

Trafford Center – One Shopping Centre

In 1999, the Trafford Centre Real Estate Securitisation provided investors with the attractive opportunity to buy securitised papers from one of the UK's premier shopping centres. Trafford Centre is a developed site located in an excellent catchment area, and before the transaction commenced 98% of its space was already let out through long-term lease contracts to a broad mix of well-known retailers. The structure was a two tier financing structure that was secured by the rental cash flows of the property. Proceeds from the bond were used to refinance bank debt, to pay the associated costs and to provide liquidity for the ultimate owner of Trafford Centre, the Peel Group.

Vesteda Residential Funding I B.V. – Multi-Family Portfolio

This Real Estate Securitisation securitised a portfolio of Dutch residential properties owned and managed by Vesteda, a real estate mutual fund. Vesteda was created in 1998 following the divestiture of the residential portfolio of ABP, the largest pension fund in the Netherlands. The initial portfolio, valued at €3.98 billion consisted of more than 38,000 apartment units and single family houses located in 372 properties throughout the Netherlands. The issued notes benefited from a pledge of shares in the investment funds that legally owned Vesteda's properties. The interest on the notes is paid through the rental cash flows of the properties. The company's direct motivation in originating the transaction was to refinance an existing bridge loan, as part of its broader strategy to refocus its residential property business.

Schalke 04 – Future Ticket Proceeds from a Soccer Stadium

The soccer club FC Schalke 04 in Germany has recently raised about €85 million by securitising their ticket proceeds of the next 10 years in a private placement with UK and US institutional investors. The new built stadium

functions as an additional collateral for the transaction. The money will be invested in the development of a new rehabilitation compound on the football clubs property.

Tornator Finance – Proceeds from a piece of land used for Forestry

A forestry company called Stora Enso from Finland spun off 600,000 hectares of forest to a company called Tornator Timberland Oy, which has refinanced itself by issuing notes in a Real Estate-Backed Whole Business Securitisation. The revenues that will pay off the bond will come from a 10-year contract with Stora Enso guaranteeing the harvest sales for the length of the deal. In essence this is a sale of future cash flows from real estate (forest/land).

4.4.4.3 Motives

The motives of doing Real Estate Securitisation are basically the same as with other asset classes. Real Estate Securitisation constitutes an innovative form of financing and the most fundamental question to be asked is: Why securitise?

Here, the key motivations for real estate companies and corporates to use Asset-Securitisation basically remain the same in Europe as in the United States:

1. Cheaper funding
2. Diversification of funding sources
3. Balance sheet optimisation – off-balance sheet financing

For banks that are securitising their commercial mortgage loan portfolios, also the selling of risks and relief of regulatory capital are a motive. Here the hierarchy of motives also differs from the other originators:

1. Regulatory and/or tax arbitrage
2. Selling risks
3. Cheaper funding
4. Diversification of funding sources
5. Balance sheet optimisation – off-balance sheet financing

There continues to be a heavy debate in Europe regarding the validity of Securitisation as an innovative financing tool. Identifying and understanding the originator's motives is half the battle to completing a transaction. Once the motives are identified, the question comes up if all the motives can be structured into the transaction. If, for example, the originator's main motive is balance-sheet optimisation, special care must be taken to ensure that the sale of the assets to the SPV will be characterized as a true sale. However, if the originator views the transaction as simply a financing, then the true sale character may not be an issue at all, and the focus will be on minimizing credit enhancement in order to obtain the best funding achievable. Whatever the motivations, structuring in Europe is an open field for innovation.¹¹⁸⁷

4.4.4.4 Transaction Schemes

The strongest overall transaction scheme over the last 8 years has been **Single Asset/Single Borrower transactions** (51%), by far. This has been followed by **Operating Company transactions** (16%) and **European Conduit CMBS transactions** (14%). The smallest category has been the **Portfolio-CMBS transactions** (synthetic and true sale) both with 9% market share. (Figure 37: Structure Analysis – Transaction Schemes).

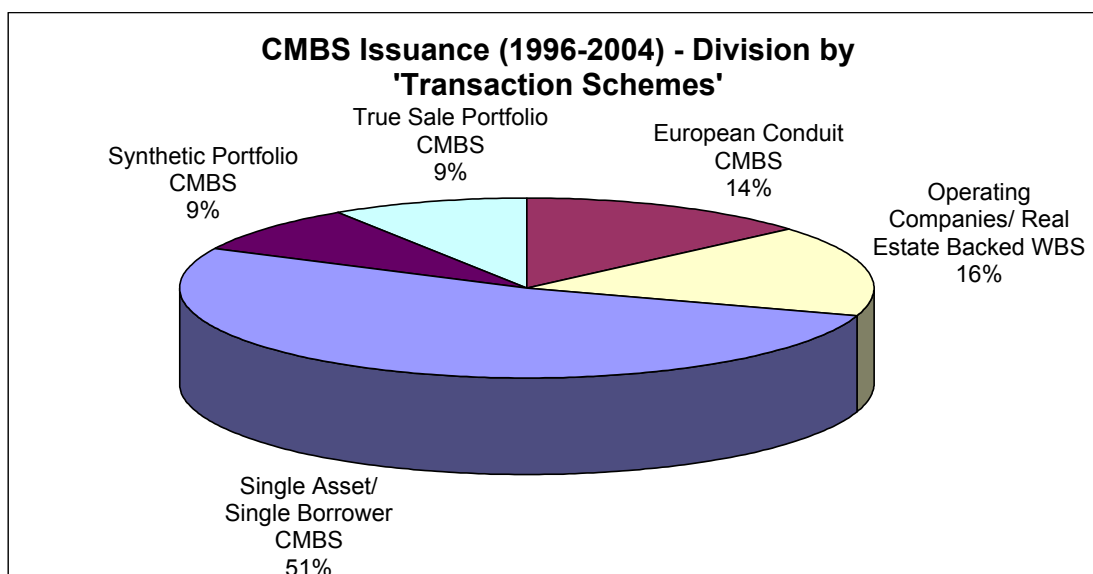


Figure 37: Structure Analysis – Transaction Schemes

Source: Authors Compilation

¹¹⁸⁷ Cf. Davidson, *et al.* (2003), p. 504.

Looking at Figure 38: CMBS New Issuance by Transaction Scheme, it becomes evident that Single Asset/Single Borrower transactions are losing ground compared to other transaction schemes. For the purpose of this analysis synthetic and true sale Portfolio-CMBS have been added into one category, as in the future the synthetic part of transactions in Europe will decline. This can be mainly attributed to the developments in Germany and the 'True-Sale Initiative'. True Sale Portfolio-CMBS as well as European Conduit CMBS transactions will lead the way in the future. Historically, the Operating Company deals have been strong because of the funding benefit, but going forward the number of potential operating companies that fit this category will decline, as it is only popular and feasible in the UK. Single Asset/Single Borrower transactions are still going to take up a big part in European CMBS, but their relative share will decline as the other (except operating companies) will become stronger. It is already observable that European Conduit programs are making up ground and the number of new conduits in the market is also leading to this conclusion.

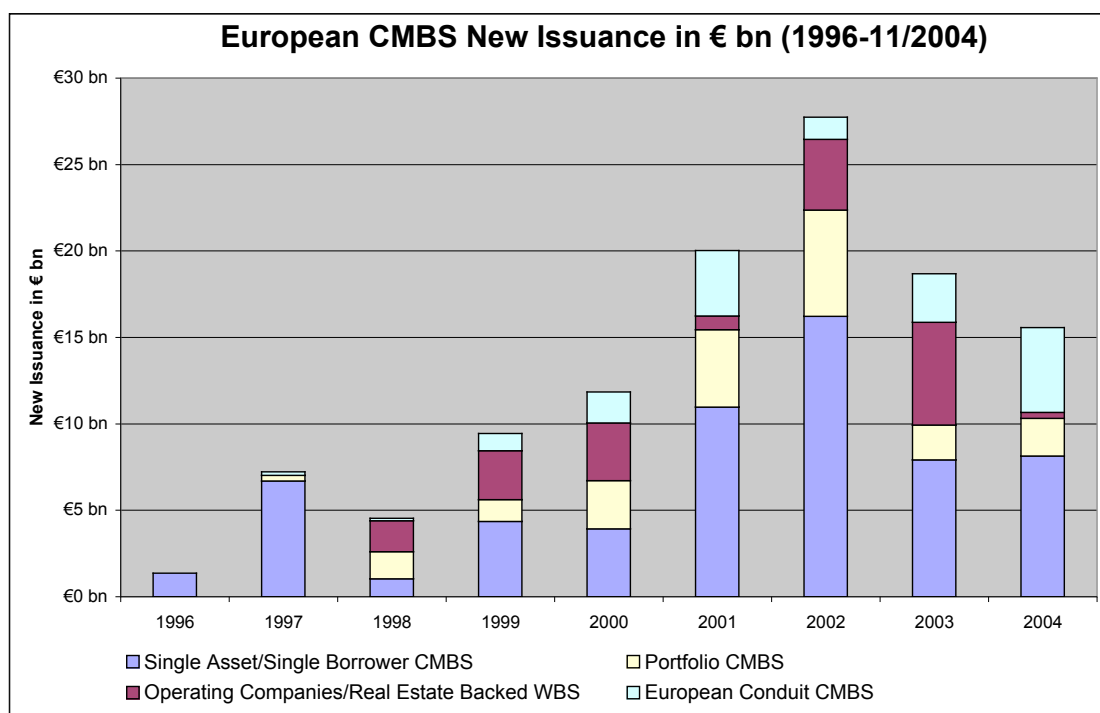


Figure 38: CMBS New Issuance by Transaction Scheme

Source: Authors Compilation

As in many financial fields, structuring Real Estate/Commercial Mortgage-Backed Securitisations is both an art and a science. On the one hand, arrangers have to have a mathematical understanding of the underlying cash flows from the asset, be able to model the flows, and transform those flows into

bonds with characteristics pleasing originators and investors alike. However, on the other it is not enough to only take a mathematical approach to structuring. A Real Estate Securitisation is bound by legislation relating to the collateral that can impact both the structure of the bonds as well as the credit of the collateral. Regulations pertaining to the originators, particularly financial institutions, can create incentives for various types of structures. Finally, the needs and motives of the originator as well as the requirements of investors (with respect to asset-liability matching) can have a large impact on the characteristics of the issued bonds. Especially in Europe, structuring takes particular creativity because of the differences between legal jurisdictions and simply because the market is still relatively new and the assets are mostly heterogeneous.¹¹⁸⁸

In order to understand the different structures, it is important to look at the different peculiarities in the European market. For this the following part will analyse true sale vs. synthetic distributions, distribution of rating agencies, distribution of interest rates models chosen, denomination of issued notes and the number of tranches in transactions.

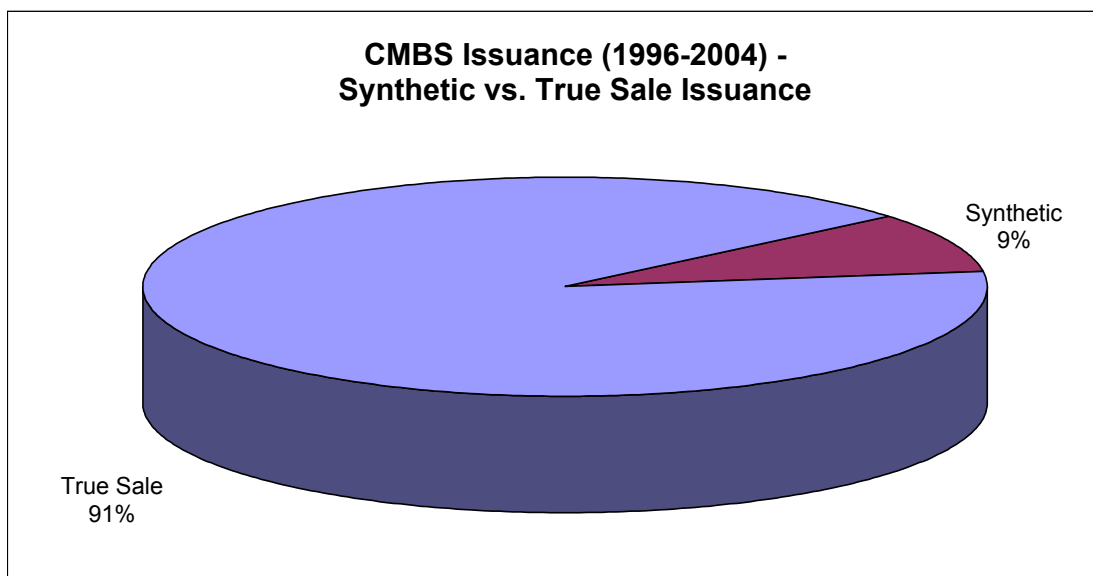


Figure 39: Structure Analysis – Synthetic vs. True Sale

Source: Authors Compilation

Figure 39 shows the distribution of **true sale vs. synthetic transactions**. As mentioned in the previous parts the amount of synthetic bank-originated Portfolio-CMBS is very limited as they are predominantly used in Germany as a

¹¹⁸⁸ Cf. Davidson, *et al.* (2003), p. 503.

risk-transfer instrument. In all other countries in Europe, true sale transactions are feasible and doable – only in Germany there is a tax problem that burdens true sale transactions with such high credit enhancements that those transactions do not make economic sense. Going forward this obstacle is on the best way to be solved as a new law in Germany has made true sale transactions possible for bank-sponsored SPVs.

From a **Rating** perspective, all transactions in Europe are rated. Looking at Figure 40, it becomes obvious that the structured finance rating market is an oligopoly. All rating agencies hold about 1/3 of the market, with Standard & Poor's (39%) being the leader followed by Moody's (34%) and Fitch (27%).

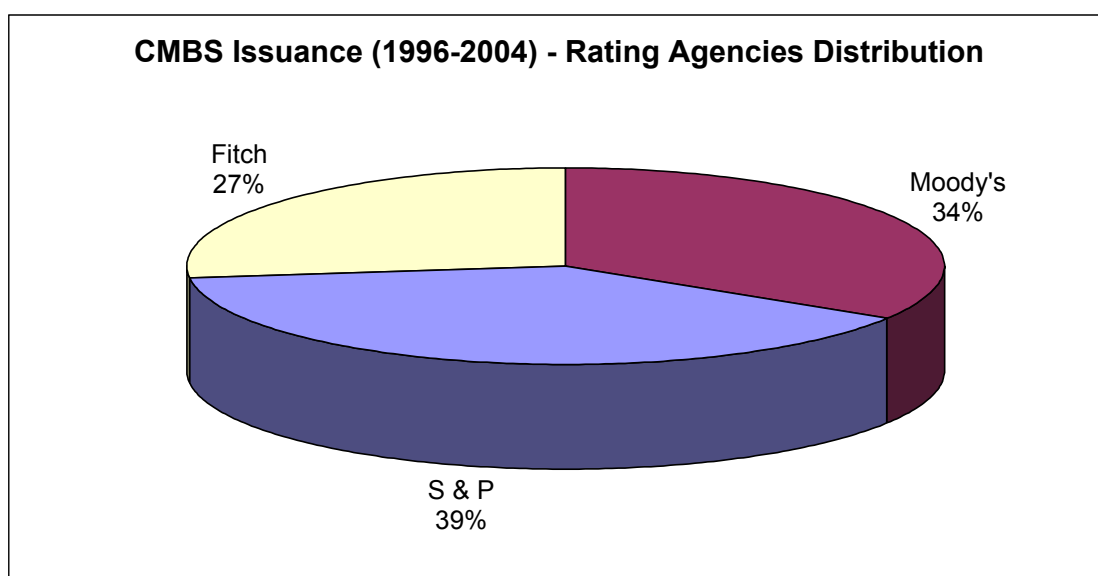


Figure 40: Structure Analysis – Rating

Source: Authors Compilation

Being the opposite to the US, the biggest part of transactions in Europe are floating-rate transactions. This has historic reasons, as the market in the UK has always been a floating rate market. Even residential mortgage loans have a floating rate charge. Being the strongest market in Europe, the UK is therefore also skewing the distribution of interest rates concepts shown in Figure 41. Especially in the beginning, transaction were either fixed or floating interest transactions. As the market has developed and deals increasingly had multiple tranches, for better placement with investors all over Europe, issuances were mixed between fixed and floating-rate interest rates.

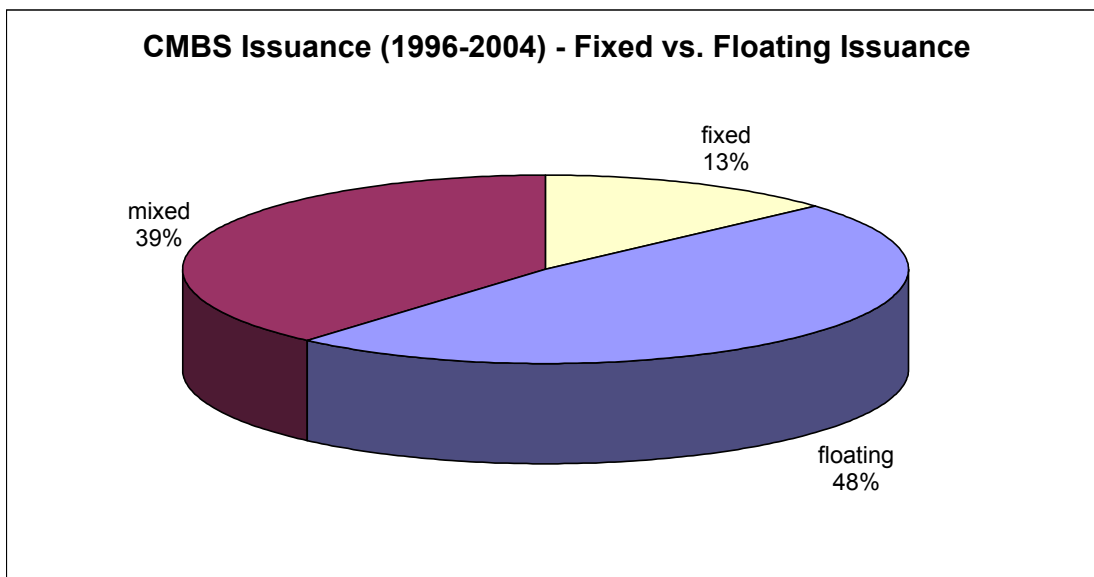


Figure 41: Structure Analysis – Fixed vs. Floating

Source: Authors Compilation

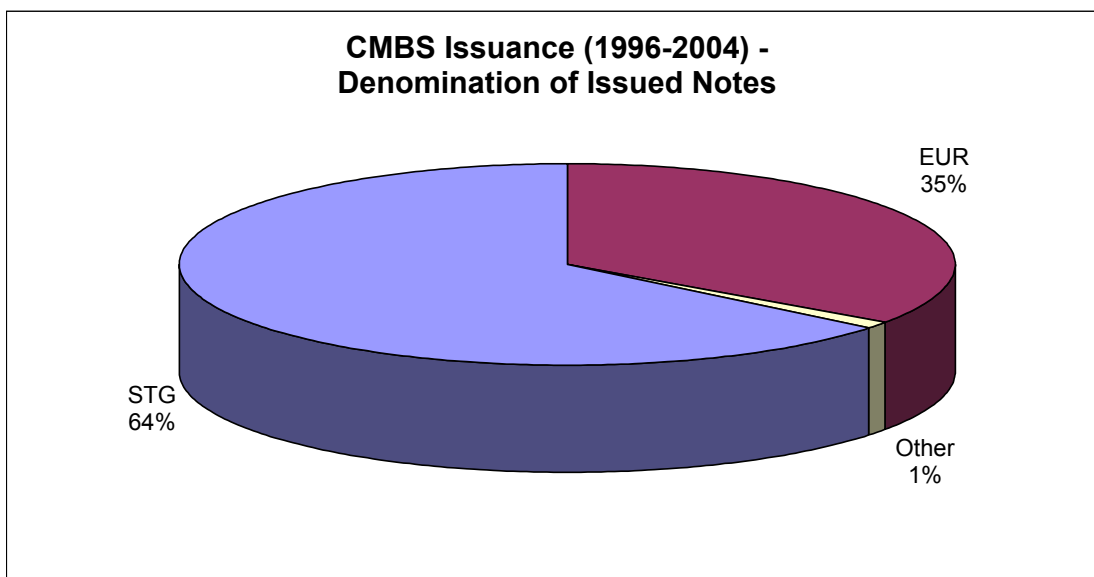


Figure 42: Structure Analysis – Denomination of Issue

Source: Authors Compilation

Looking at the **denomination of issued notes** it also becomes evident that the UK has dominated the European Real Estate and Commercial Mortgage-Backed Securitisation market. The majority of tranches in CMBS transactions were issued in British Pound Sterling (STG), only one third was issued in Euros or before the Euro in the respective currency of the issuing country. Only a small amount of European Issuances was issued in other currencies.

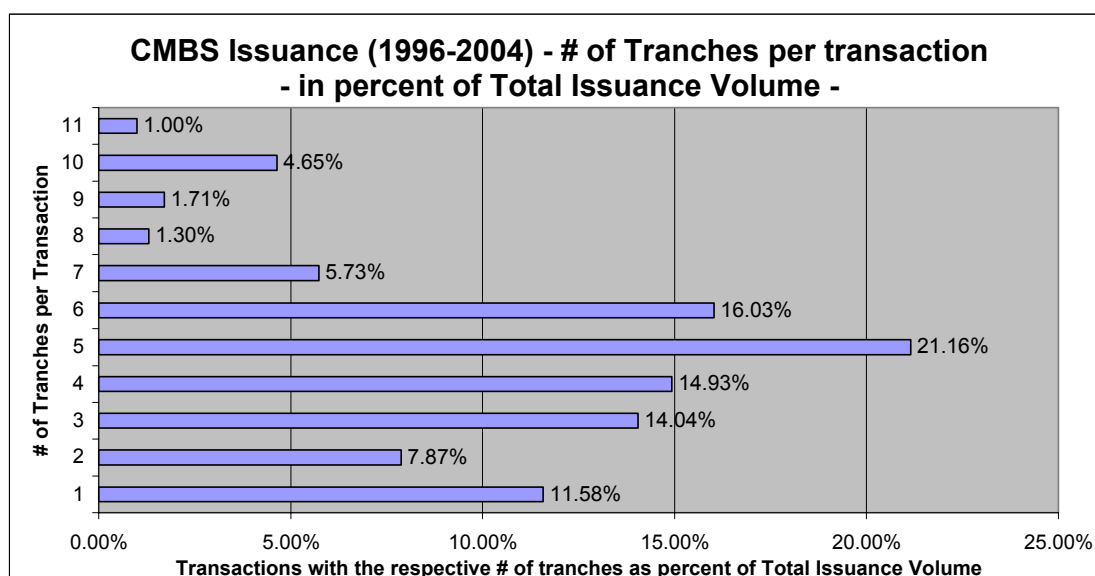


Figure 43: Structure Analysis - # of Tranches (in %)

Source: Authors Compilation

The CMBS Issuance divided by **number of tranches per transaction** (Figure 43), also offers an interesting picture. Generally, at the inception of the market it was usual to only issue transactions with one tranche or at most two/three tranches. However, as the market got more diverse and sophisticated transactions were structured into more and more different tranches. Those issuances obviously also had a higher issuance volume as can be observed by the comparison of Figure 43 and Figure 44. The gross of transactions only had one tranche (62), however, comparing the issuance volume of transactions with the respective number of tranches as percent of total issuance volume, then it becomes clear that transactions with 5 tranches had the overall highest share of all transactions (21.16%). This leads to the conclusion that the complexity of structuring in European CMBS transactions is increasing and that smaller transactions with just one, two or three tranches are declining.

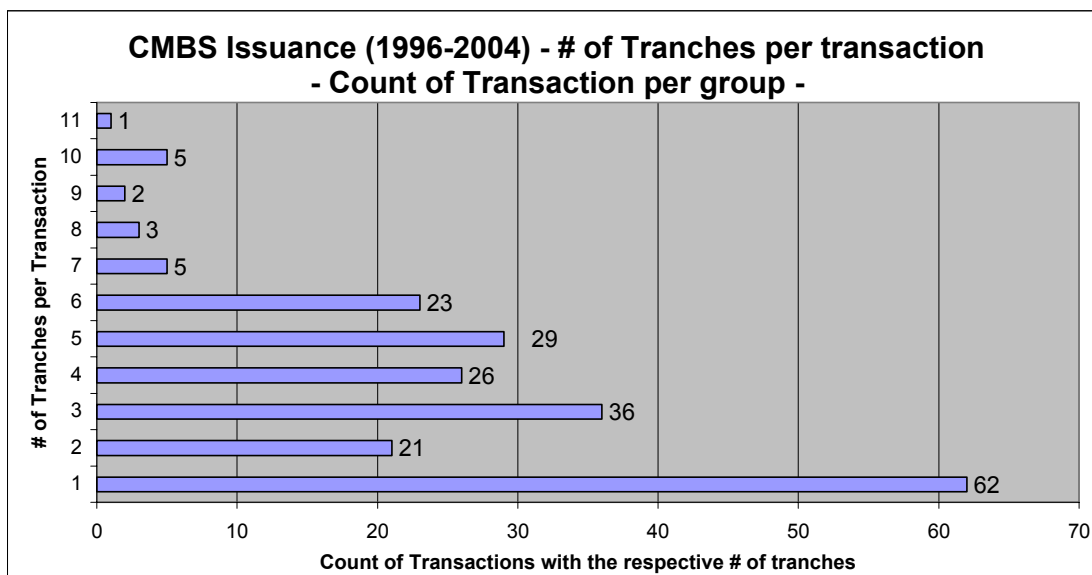


Figure 44: Structure Analysis - # of Tranches (in €)

Source: Authors Compilation

4.4.5 Analysis

The first Residential Mortgage-Backed Securities transaction in February 1987, in the UK, can be set as the inception of the European Asset-Securitisation market. Even though it was an early start, the overall evolution of the concept in Europe took a lot longer than in the US. As it is the banks that traditionally are the first adapters and users of Asset Securitisation, in Europe there were not the right implications for this kind of start for two reasons:

1. The banking industry was highly regulated and protected.
2. Banks were not under much pressures to achieve high returns on equity.

Even though, the UK became similar to the US, the overall European market was very different from the US:

- There were no pass-through structures in Europe.
- Securitisations in different countries and even from different issuers in one country could be very dissimilar.
- There was a huge lack of statistics about default rates.

After moving starting years in the late 1980's and early 1990's the overall Asset-Securitisation market in Europe has been on a steady growth path. However, due to the number of jurisdictions, the pan-European market is one of the most complex as, whilst there are proposals to harmonise European legal,

accounting and regulatory guidance to produce a pan-European framework, at present the implications for Securitisation in Europe are many and varied and also subject to considerable change and evolution.

Who was involved?

Asset-Securitisation (overall market)

The beginnings of the market go back to 1985, when Salomon Brothers decided to venture into the European market and introduce Residential Mortgage-Backed Securities. Salomon became the innovator in European Asset-Securitisation as they became the innovator in US CMBS.

Rating Agencies were strongly involved in the evolution of the market. Standard & Poor's and Moody's set the standards and adapted the criteria from the US to fit European peculiarities. Thereby they facilitated the Securitisation issuances.

Investment banks and rating agencies have played a crucial role in the Asset-Securitisation market in Europe throughout the development cycle. They have been innovators and drivers for constant change in the political, legal, regulatory and investor/rating environment.

The UK was the first market to develop Asset-Securitisation (1987). France (1989) and Spain (1991) were early adopters followed by Belgium and France in the mid-1990's. The Netherlands, Germany and Luxembourg only followed in the late 1990's and early 2000's.

Real Estate/Commercial Mortgage-Backed Securitisation

In Real Estate/Commercial Mortgage-Backed Securitisation, the **UK** was not only the first market to introduce this product in 1994, but it is also the strongest market in Europe with an overall share of 65% of all CMBS since the inception of the market. The second largest market is **Italy**, fuelled by government Securitisations with a share of 11%. This is followed by **Germany** (6%), **France** (5%), **Scandinavia** (4%) and **Netherlands** (3%).

Sellers/Originators/Borrower:

- The primary originator category is the **corporate category (23%)**. Corporations (especially in the UK) have strongly been involved in Sale-Leaseback transactions.

- The second largest class was **Governments (22%)**. Governments in Europe played a crucial role not in facilitating the market (as in the US), but by being a strong originator of assets in Real Estate Securitisations (especially Italy). This trend is likely to rise as governments, states, counties and municipalities all over Europe are subject to decreasing tax revenues, higher deficits and increase spending. Securitisation is a legitimate funding tool in that respect.
- The third category are **Conduit Vehicles (16%)** and **Banks (13%)** that both originated multi-borrower transactions. Especially the Conduit category is expected to grow in the future.
- **Real Estate Investors (12%)** and **Developers (8%)** also represent a growing originator group. Especially investors and developers of large, trophy projects will generate funding advantages by using Securitisation.
- The smallest category is **Housing Associations (6%)** and that is negligible.

Which assets?

From an asset class perspective, Europe took the same evolution path as the US. First it was residential mortgages and then new asset classes evolved out of RMBS. As residential mortgage loans are very small and homogeneous; and hence, big granular highly diversified portfolios can be constructed, it is this asset class that offers the greatest opportunity.

For Real Estate/Commercial Mortgage-Backed Securitisations in Europe it would be misleading to just look at the asset. There are four different attributes of a transactions with respect to the asset in the transaction:

1. The Type of Asset

Biggest category of assets securitised in Europe is '**Mortgage Loans**' (36%), followed by '**Credit Tenant Lease**' (24%) and '**Current and Future Real Estate Receivables**' (23%). The smallest category is '**Operating Companies**' (17%), which is a European invention.

2. The Cash Flows Supporting the Bonds

The cash flows that support the bonds are different in transactions that securitise different assets. Hence 36% of all transactions were supported by **'Interest and Principal Payments from a loan'**, 24% by **'Credit Tenant Lease Cash Flows'**, 23% by **'Lease Cash Flows and Future Sale Proceeds'** and 17% by **'Cash Flows from Operations'** (including lease cash flows).

3. The Type of Collateral/Security in the transaction

The difference between asset and collateral has been described in an earlier part of this chapter. The primary security in European Real Estate/Commercial Mortgage-Backed Securitisations is **'Mortgage'** collateral (60%). This makes sense as many Real Estate Securitisations are structured into mortgage loans in order to bypass the transfer tax on property transfers. A first lien (mortgage lien) on a property is a legitimate and cost effective way to secure claims in Europe. However, in 23% of the overall transaction volume, **'Property'** was transferred. Operating company deals that make up 17% of the total volume offer the **'Strength of the Operating Company and the Property'** as additional security to the investors.

4. The underlying Property Type

The underlying property types were primarily **'Office'** (31%), **'Multi-Family'** (22%) and **'Pubs'** – a UK specificity (13%). **'Retail'** (7%), **'Industrial'** (2%) and **'Hotel'** (1%) were relatively small. The strong UK market also had an influence on the underlying property types, as special property types like **'Healthcare'** (5%) and **'Social Housing'** (2%) played a strong role.

Why do assets qualify?

Underlying real estate generally qualifies for Real Estate Securitisation if it satisfies the following criteria:

- High grade assets/properties
- Long lease terms
- Predictable cash flows

- High credit tenants

As a result, the following evolution of underlying property assets in Single Asset/Single Borrower CMBS can be identified:

1. Trophy Assets (Canary Wharf, Broadgate)
2. Government Assets (Annington, S.C.I.P.)
3. Corporate Assets (Imser, Telereal)

What motives?

Looking at the motives it is important to distinguish between bank-originated transactions and others. For banks the primary motives are **relief of regulatory capital** and the **sale of risks**, whereas for non-banks (including governments and corporates) the primary motives were **cheaper funding**, **diversification of funding sources** and **balance sheet management**.

What structures/schemes?

The study identified 213 transactions including deals that fall into the category of Commercial Mortgage-Backed Securitisation and Real Estate Securitisation, like the Italian Treasury deals (S.C.I.P. 1 & 2).

Due to a European specificity all Asset-Securitisation transactions (incl. CMBS) can be segmented into 'True Sale' and 'Synthetic' Securitisations. Following this segmentation the subsequent transaction/deal schemes/types can be identified:

1. Synthetic Portfolio-CMBS

Only the risk of the underlying loan portfolio is transferred to the investors. The assets stay on the bank's balance sheet.

2. True Sale Portfolio-CMBS

The issued securities are backed by an underlying granular portfolio of mortgage loans originated by commercial or mortgage banks.

3. Real Estate-Backed Whole Business / Operating Company transactions

Transactions are based on cash flows from an operating company that are backed by underlying real estate and that are structured into a secured loan structure.

4. European Multi-borrower Conduit CMBS (Large Loan CMBS)

Those transactions incorporate multiple properties and multiple borrowers, i.e. a number of large mortgage loans on commercial real estate that have specifically been originated for the sole purpose of Securitisation.

5. Single Asset/Property – Single Borrower

This transaction scheme incorporates one property or one borrower. There are three types:

- i. Single Property/Single Borrower CMBS*
- ii. Multiple Property/Single Borrower CMBS*
- iii. Sale-Leaseback/Credit Tenant Lease Securitisation*

Single Asset/Single Borrower transactions (51%) have been the strongest transaction scheme since the inception of the market in Europe. Out of their historic position Real Estate-Backed Whole Business/Operating Company Securitisations have come up to the second strongest transaction scheme (16%). European Conduit CMBS have had a hesitant start, but have been catching up during the last couple of years (14%). Portfolio-CMBS have been the second largest category if synthetic and true sale transactions are combined (synthetic – 9%, true sale – 9%). However, looking at the attributes of synthetic transactions this result is misleading. Those transactions have been bank driven and especially the true sale deals are expected to rise in the future.

Overall, 91% of all transaction structures have been true sale transactions, compared to only 9% that have overall been synthetic transactions. The most part of the synthetic transactions originates out of Germany. Keeping in mind that synthetic Securitisations are not Securitisations in the traditional sense (as the asset stays on the originator's balance sheet), this leads to the conclusion that the German market is still strongly underdeveloped.

All transactions are rated. Standard & Poor's (39%) leads the market, followed by Moody's (34%) and Fitch (27%). The biggest part of all transactions is floating rate interest or mixed – only 13% is pure fixed rate issuances. The majority of tranches is issued in Pound Sterling (as most issuances have occurred in the UK). Only 35% are denominated in Euro. Transaction structures are usually complex and targeted at specific investor groups. As the issuance volumes are rising, the number of tranches is also increasing.

Which role played which environment?

Generally, all environments had an influence on the market – some stronger and some weaker. The overall framework for Asset-Securitisation in Europe, however, was not favourable, but quite hazardous.

- **Regulatory and legal environment** has carried the greatest importance in the evolution of Asset-Securitisation in Europe:

A favourable environment is a driver for the evolution, a bad environment is a total hindrance for the evolution. The legal and regulatory environment, in many countries was the most critical evolution obstacle in Europe.

In the US, most legal and regulatory issues with regard to Asset-Securitisation have long been settled. In Europe, however, due to a number of different jurisdictions, those issues have remained mainly unsettled for a long time. The pan-European market is one of the most complex as there exist different local regulatory and legal regimes.

The main considerations that make the market so complex from this perspective are:

1. Type of law (*Anglo-Saxon, Germanic, or Napoleonic*):

Anglo-Saxon law (UK) is very capital market friendly. Germanic law (Germany, Austria, Netherlands and Scandinavia) is very inflexible and therefore represents an obstacle for the evolution of the market. Napoleonic law (France, Belgium, Luxembourg, Spain and Portugal) is a mixture between the two previous.

2. Securing the assets and cash flows:

The main concern for investors is how to secure the asset and the cash flow in case of originator or borrower bankruptcy. With respect to real estate the following issues are important – they vary tremendously over different jurisdictions (also depending on the type of law):

- The loan contract
- The security
- The legal foreclosure process

3. Local legal and regulatory framework for Securitisation:

Even though most countries have different approaches to legislating Asset-Securitisation and Real Estate Securitisation, attempts are being made to facilitate the process and to harmonize European legislation. Currently, there is no common pan-European framework that. Hence, regulation and legislation is different in different countries. Some countries rely on older laws not explicitly addressing Securitisation, whereas other countries have been implementing legislation specifically aimed at Asset-Securitisation.

The analysed countries offer a diverse picture of the legal and regulatory environment in Europe:

- The overall environment in the **United Kingdom** was favourable. Even though UK regulators were neither encouraging, nor discouraging this form of finance, the legal environment was very advantageous. There were very few legal obstacles to completing Securitisation transactions- The flexibility of the common law system has generally benefited the development of a strong market.
- **Italy** featured a strong government involvement that has shaped the legal and regulatory framework to facilitate Asset-Securitisation for certain groups of assets and borrowers.
- **Spain** was an early adopter of Asset-Securitisation. However, changes in the regulatory and legal environment were not far-

reaching enough. Instead of implementing a comprehensive legislation, changes came piece by piece. This has been an obstacle for the free evolvement of Asset-Securitisation.

- **The Netherlands** was one of the countries that has not yet introduced a specific Securitisation law. There exist regulatory guidelines, but from the legal side only the Dutch Civic Code applies. Hence, there are a number of hurdles that can create problems in Dutch Securitisation. This has held up the market.
- Together with the UK, **France** has one of the most advanced legislative frameworks with respect to Asset-Securitisation. France was also an early adopter in the late 1980's, however, the start was hesitant and it took long before the framework is what it is today. After multiple amendments the framework has been adapted to fit the modern international Asset-Securitisation requirements.
- The **Luxembourg** legislation on Securitisation is the newest of all European countries, resulting out of March 2004. It is a very Securitisation friendly framework that will create another promising market segment for the strong financial market in Luxembourg.

Overall, policy makers in Europe are making the right decisions and are generally going into the right direction. Especially in 2003, key developments in the legal and regulatory framework have happened, which provides evidence that regulators and legislatures are paying greater attention to the Asset-Securitisation market and what it can do for the overall economy. One key development is the talk about a pan-European mortgage agency (European Mortgage Finance Agency) that will set standards and promote mortgage lending in a similar way as government-sponsored entities in the US.

- **Tax environment** also had a strong influence on the CMBS:

The tax environment has been a withholding factor for the evolution. So, it has had a strong influence on the development of the market. However, rather on the negative side than on the positive side.

In general Securitisation structures should aim at being tax-neutral and special purpose vehicles should be tax transparent. If this is not the case, then Securitisation becomes very difficult and the market development is held up. Hence, if the legal and regulatory policy makers decide on favouring the legal and regulatory environment, they should also create solutions for the tax environment. Only Luxembourg, with the new Securitisation law, has created a stringent and integrated Asset-Securitisation solution over all different environments.

- As in the US, **the Accounting environment** did not play such a critical role in the evolution as the previous environments, but it has been an overall hindrance for the free evolution of the market:

Although there are common international guidelines in the making, until now there have been multiple accounting guidelines and multiple implications for Securitisation in the different countries. This has led to a divergence of motives in different countries and transaction structures have mirrored this.

- **Investor and rating environment** are of vital importance the evolution of Asset-Securitisation:

The Rating environment has played a crucial role in the European Asset-Securitisation market. They set standards, rigorously checked transactions and rated and oversaw them.

It was the rating agencies' ratings that gave comfort to investors; however, the market go off the ground at times, when new bond issuances were not rated at all. So the most important success driver of a new investment instrument is investor acceptance. From an investor's perspective the question is if the investment broadens the investment asset base available to investors, if it incorporates attractive risk/return ratios and if investors understand it. Hence, if investors are willing to buy those assets in a specific market segment, then this investment instrument will be successful. As the investment base is becoming increasingly sophisticated and investors are

more and more getting comfortable with investments in Asset-Securitisations, investor acceptance of new innovative transaction structures and new asset classes has grown.

Investors in Europe got interest in Asset-Securitisation because it offered:

- Good yields on high quality assets (attractive spreads)
- There was a yield-pickup compared to corporate bonds.
- Diversification benefits
- Liquidity in the market (only UK)
- Potential trading profits

All in all, it is the security of the assets, the spreads and yield-pickups that drive investors in Asset-Securitisations. The investor environment is crucial to the evolution of the product, but without a good product there is no evolution.

- The **Real Estate/Local Environment** had different influences:

The Real Estate Environment had an influence on the timing of the development, but it was not such a strong driver as the other environments.

The different local environments in Europe have led to a multitude of local peculiarities. Overall, this has been an obstacle for the standardisation of asset classes and transaction structures. Also, this has led to differences in structuring between the US and Europe as is displayed by the secured loan technique used in many European Asset-Securitisations.

What were the drivers?

Europe is diverse – it is more than just the UK. The European market is coined by different legislations, regulations, tax and accounting environments, economies and localised capital markets. Those peculiarities lead to different drivers and obstacles in different countries. In order to show the peculiarities of Europe, one has to look at the obstacles first, before looking at the drivers.

Obstacles

As CMBS lenders and arrangers spread across Europe, they often encountered challenges requiring expanded market-level due diligence, greater legal due

diligence, and new ways of structuring forms of security to address differing tax regimes and country-specific enforcement procedures. The development of Asset-Securitisation was hazardous, due to the following obstacles:

- Differing legal frameworks.
- No uniform underwriting standards.
- No databases with historic performance statistics.
- In the beginning there was no uniform currency.
- In most cases government support was very little.
- Political risk for innovators was large.
- Markets throughout Europe were small and fragmented.
- New deals incorporated large legal and structuring fees.
- Other up-front costs (e.g. for computer networks, research) were too high for such small markets.

The market in continental Europe was also different from the US and the UK – for example, multiplying the successful development of RMBS in the UK into the other continental European countries was difficult because of the following reasons:

- No special government-sponsored entities to promote mortgage financing in Europe.
- A lack of active specialised housing finance companies.
- Large domestic covered bond markets.
- Prepayment Risk was non-existent.

Drivers

As with the US and Singapore, when Asset-Securitisation finally got adapted in the different countries, the main drivers in most of those countries became:

1. Government Support – in order to safeguard the banking system
2. Financial Crisis and Credit Crunch – a shortage of funds available for originators through traditional financing.

Additionally the introduction of a pan-European currency (EURO) opened up local markets and created a pan-European capital market.

Overall, there were a lot of drivers involved in the inception and evolution of the Real Estate/Commercial Mortgage-Backed Securities market in Europe:

- The British regulation on Securitisation has been a driver for the regulation in other markets. Many European regulators have looked at the views and guidelines of the Bank of England's as the basis for their approach to Securitisation in their domestic market.
- Residential Mortgages became the first asset class within Asset-Securitisation in Europe – it still makes up more than 50% of the overall market.

The same evolution drivers as for RMBS also count for CMBS. The drivers for RMBS in the UK were:

- **Borrower/Originator/Issuer Demand** – as banks were pressured by Basel I to better manage their balance sheets
- **Investor Demand** – there was a big supply of funds that needed to be invested and there was not enough supply of capital markets debt.
- **Profit Potential** – investment banks identified potential profits in the market.
- Innovation is always there, where there are favourable legal circumstances – a solid and established legal system as was prevalent in the UK in the 1980's was the seed for the evolution.
- Enormous growth in the overall European market over the last 8 years can be attributed to the following drivers:
 - I. The amendment of the legal and regulatory framework.
 - II. The introduction of the Euro.
 - III. The growing acceptance in the corporate and the banking market.
 - IV. The transparency of the market that has been pushed forward by the rating agencies.

- The drivers for the evolution of CMBS was that the UK real estate market offered the best opportunity. It has been established as one of the most landlord-friendly leasing markets in the world – commercial leases have a contractual term of 15 to 25 years and provide landlords with ‘five-year upwards only rent reviews’. This has led to very stable, secure and bondable lease cash flows, which are the basis for a functioning Real Estate Securitisation.

Eventually, the solution of obstacles became the driver for the inception and on-going evolution of the market. Securitisation has continued to develop steadily as a viable funding alternative for European companies. There are good grounds to assume that this steady progress will continue. Since 1997, the number of originators has grown (including many substantial highly rated institutions), along with their underlying motives, asset types supporting transactions have diversified, the investor base has expanded to easily absorb the increased issuance, costs have fallen, and positive legislative and regulatory changes have been seen in different countries.

What role plays the timing?

The evolution of transaction schemes came in specific order:

1. Real Estate-Backed Whole Business/Operating Company Securitisations (1994/1995)
 - Assets: First health care facilities and then pubs.
 - Motives: First lower borrowing costs (health care facilities), later also acquisition financing (pubs).
 - Timing: Corporate cost of debt at the time was usually higher than mortgage finance.
2. Multi-Borrower Conduit CMBS (1995)
 - Assets: Mortgage loans specifically originated for Securitisation.
 - Motives: Conduit into the capital market – fee generation for investment banks.

- Timing: Slow start – Market was too immature – European Conduit CMBS did not directly get off-the-ground.

3. Single-Property/Single Borrower CMBS (1996)

- Assets: First the deals were based on Single 'Trophy Assets' or Single 'Investment-Credit Borrowers' – transactions were based almost entirely on the credit rating of a single tenant or entity. In a second stage the focus shifted towards the underlying commercial property value.
- Motives: Incurred less costs and had a competitive edge – transactions achieved significant financing cost advantages over traditional mortgage lending rates.
- Timing: Transactions were easier to structure and place than Conduit CMBS.

4. Portfolio-CMBS (1997)

- Assets: Mainly bank-originated mortgage loans.
- Motives: Relief of economic and regulatory capital.
- Timing: In times of increasing pressure on return on equity targets banks needed to find ways to relief their capital base and generate new and higher-yielding business.

Conclusion:

Whenever there is a funding arbitrage public real estate debt markets will disintermediate private lending markets.

What else played a role in making the market successful?

Markets driven by investment banks always develop in the place with the greatest potential and the least structuring obstacles – the UK offered the right environment at the time:

- The UK mortgage market had a critical size.
- No enabling legislation was required.
- There was no adverse government regulation.

- No language barriers existed for investment bankers.
- Strong investor appetite for capital markets debt.

However, there were no government-sponsored entities involved as in the US (Fannie Mae, Freddy Mac). Thus, the development and the government involvement had a different character than the US.

4-Stage Model for Real Estate Securitisation

From the preceding breakdown of the Asset-Securitisation framework and the analysis of the evolution of Real Estate/Commercial Mortgage-Backed Securitisation in Europe, the 4-stage model for the Real Estate Securitisation markets introduced in Chapter 4.2.5, can be adapted to Europe (Figure 45).¹¹⁸⁹

Stage 1 (1987-1992): Experimental Stage

- a. New structure development
 - i. First Asset-Securitisation in the UK – RMBS (1987)
 - ii. First transactions in France and Spain (early 1990's)
 - iii. First Sub-ordination structure in the UK (1992)
- b. Market opening: small market (primarily UK)
- c. Small market volume (total new issuance until 1990 – €10 billion)
- d. Local development (first UK, then France & Spain, later the rest of Europe)
- e. High structural uniqueness – Structures were adapted to fit the respective market's legal, regulatory, tax and accounting frameworks
- f. High structural flexibility / unstandardised
- g. High costs / expensive transactions (very high structuring & legal fees due to different jurisdictions)

¹¹⁸⁹ Cf. Chapter 4.2.5.

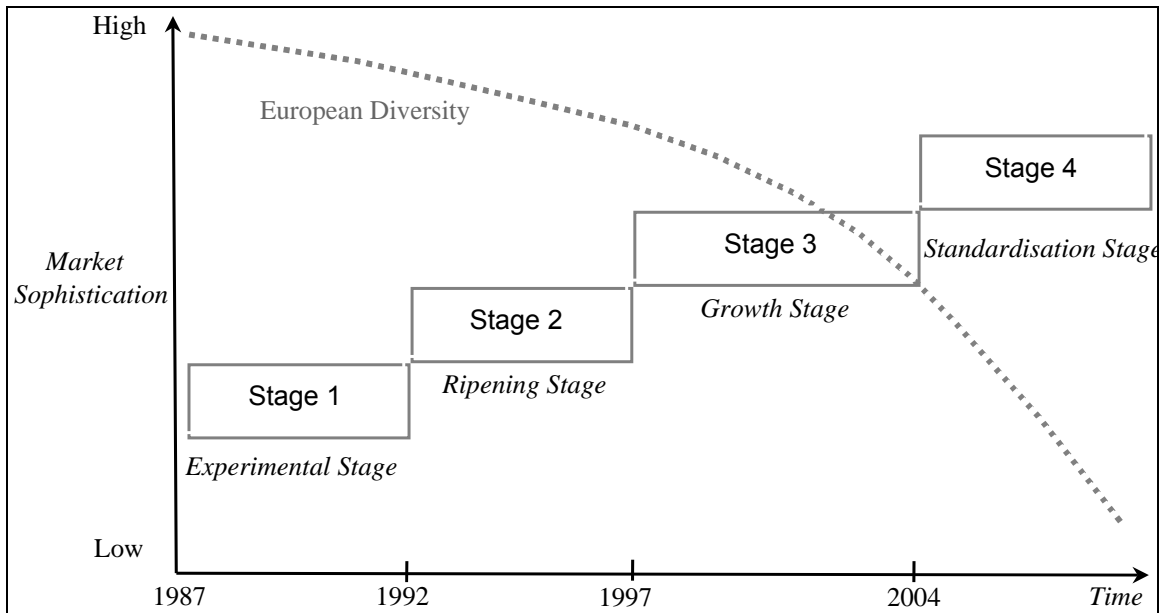


Figure 45: 4-Stage Evolution Model for Real Estate Securitisation Markets – applied to the case of Europe

- Stage 2 (1992-1997): Ripening Stage
 - a. Structure ripening
 - i. RMBS market becomes mature
 - ii. New asset classes develop
 - iii. First CMBS issuances(1994)
 - b. Market broadening for Real Estate Securitisation Schemes
 - i. Real Estate-Backed Whole Business/Operating Company Securitisations (1994/1995)
 - ii. Multi-Borrower Conduit CMBS (1995)
 - iii. Single-Property/Single Borrower CMBS (1996)
 - iv. Portfolio-CMBS (1997)
 - c. Growing market volume (yearly new issuance by 1997 – €35 billion)
 - d. Starting internationalisation
 - i. Issuances in multiple jurisdictions
 - ii. Pan-European Investors
 - iii. Rating criteria for each jurisdiction
 - e. Still relatively high structural uniqueness, but decreasing

- f. Relatively high structural flexibility / partly standardised
 - g. Transaction Costs are less, but still higher compared to traditional bank financing
- Stage 3 (1997-2004): Growth Stage
 - a. Structure evolution/assimilation (pan-European standards)
 - i. Standards are set by mature UK market
 - ii. Structures get adapted in continental Europe
 - b. Strong market growth
 - i. Asset base increases
 - ii. Issuance activity increases
 - iii. Broader originator base (Governments, Corporates, Banks)
 - c. Relatively large market volume (yearly new issuance by 11/2004 – €222.3 billion)
 - d. International recognition
 - e. Strongly decreasing structural uniqueness – assimilation of pan-European best practice structures
 - f. Structural flexibility is declining rapidly – increasing standardisation
 - g. Costs decrease
- Stage 4 (2004-Future): Standardisation Stage
 - a. Structure standardisation (dominant transaction schemes will dominate)
 - b. Matured market
 - c. Large market volume (New issuance will increase further)
 - d. Pan-European product
 - e. No innovative activity – bulk transactions
 - f. No structural flexibility – total standardisation
 - g. Costs are competitive to traditional bank financing

4.5 Results

The primary purpose of the international comparison was to find patterns in the evolution of Real Estate and Commercial Mortgage-Backed Securitisation markets, and to find out what the typical core determinants are. This was achieved by using Singapore, the United States of America and Europe as case studies. The results will be presented in the following structure.

- Market Evolution Patterns
 - Drivers
 - Timing
 - Generalized Market Evolution Model
- Influence of Environments on the Market
- Core Determinants
 - Involvement (Sellers/Originators/Borrowers, Others)
 - Real Estate Asset Classes and Asset Requirements
 - General Motives/Motivations
 - Generalized Transaction Schemes
- Minimum Evolution Requirements for Real Estate Securitisation

In all three cases the Real Estate Securitisation market and the Commercial Mortgage-Backed Securitisation market have been analyzed as one. The reason is that by industry definition Real Estate Securitisation is categorized under CMBS and in most cases it is hard to draw the line as both asset classes overlap. For this reason the analysis incorporates both.

4.5.1 Market Evolution Patterns

The whole international comparison shows that markets do not necessarily have to evolve and develop in the same act and manner. And above that not every market has to be constructed in the same fashion, has to have the same transaction schemes, and has to follow the same path as the market in the USA. Nevertheless, there are patterns that can be identified in the evolution of Asset-Securitisation and Real Estate Securitisation markets.

Singapore is a unique case within the observed Securitisation markets. Here, Asset-Securitisation evolved out of Real Estate Securitisation (Securitisation of commercial real estate assets) and not out of Residential Mortgage-Backed Securitisation, as in the cases of Europe and the US. One reason is definitely the small size of the city state's market. Nonetheless, the more obvious reason for this is that US institutions (banks/arrangers, rating agencies and investors) did not have any influence on the inception and the first two development stages of the market. It was a pure local development that only related to the general concept of Asset-Securitisation and not to any predefined international structures. The European market, on the other side, was initiated by Salomon Brothers, a US investment banking firm that had already brought forward the US RMBS and CMBS market. Nevertheless, all three markets offer the same kind of patterns.

Europe followed the US path, but the market was different than the US and Singapore in another respect. It was highly fragmented and coined by a multitude of different jurisdictions, local frameworks and local peculiarities. From this case the importance of the right set of environments can be derived. When comparing the obstacles for the evolution in Europe with the evolution in Singapore and the US, the Singapore market definitely had the most attractive and consistent environment that was set in place by a fully integrated Securitisation framework initiated by the Ministry of Finance.

Drivers

There are common drivers for the inception and evolution that can be derived from the previous international comparison

1. *Strong Involvement from the Government*¹¹⁹⁰

It is important to know the catalyst for a new market in order to understand its development. For example, in the United States, the catalyst for Securitisation was the US government's goal to encourage home ownership, and thus to create a secondary market for mortgages. In order to facilitate the evolution of a secondary market the government

¹¹⁹⁰ Cf. Davidson, *et al.* (2003), p. 447.

set up various government and government-sponsored agencies. One extremely important result of this government intervention was the creation of standards for the secondary mortgage market, and thus for the Asset-Securitisation market. This is also the reason why the development of Asset-Securitisation has taken longer in Europe than in the US. In Europe, there has been no government body to act as a catalyst for Securitisation.

In a few countries in Europe, however, governments have provided an important boost to the Securitisation market, but in a totally different way than in the US. Governments in Europe have traditionally had a large role in their respective economies, from state-owned utilities to banks, and even a large ownership in commercial and property. The institution of the common European market in the 1990s, the advent of the euro, and the resulting stabilisation pacts, have meant that many European governments have been faced with a funding dilemma for their state-owned companies. Their need to reduce balance-sheet debt has meant a large amount of privatisation and Securitisation.

A lack of government support can be a problem for the evolution of Securitisation markets as has been demonstrated in the beginning of the market in Europe. The result of less government support and the lack of government-sponsored entities to promote the secondary mortgage market has created obstacles for the setting of standards and the evolution of overall Asset-Securitisation.

- Government Involvement in **Singapore**:

Promotion of the debt market – consistent with Singapore's effort to make the city-state a leading financial centre. From the regulatory and tax side through the Monetary Authority of Singapore and the Internal Revenue Service, respectively. From the originator side through its Government-Linked Corporations. From the arranger side through the Development Bank of Singapore (DBS Bank) – a government-linked bank.

- Government Involvement in the **USA**:

Creation of a secondary mortgage market through the involvement of government and government-sponsored entities (Fannie Mae, Ginnie Mae and Freddy Mac)

2. *Financial Crisis*

In financial crisis (e.g. Asian Financial Crisis), governments are always concerned about a banking system collapse. In order to safeguard the financial system in their respective countries, in those cases most governments initiate a wide range of reforms and economic restructuring. They open new markets (i.e. Asset-Securitisation) and thus try to take away pressure from the banking system. – **Example Singapore:** Following the Asian Financial Crisis the government has actively encouraged banks to reduce their exposures to the property sector.

3. *Credit Crunch*

High interest rate environments coupled with a strong demand of real estate funding or refinancing, and low loan commitment from the banking sector lead to the evolution of Real Estate Securitisation, a public market for real estate debt.

4. *Real Estate Cycles*

The state of the real estate cycle has a strong influence on the inception and timing of the Real Estate Securitisation market. The downturn in the physical cycle followed by a (lagging) trough in the financial cycle are drivers for the start of a public real estate financing market.

When the physical real estate market is in a decline and capital flows into real estate are scarce, but real estate companies need to sell their assets, or refinance in a high interest rate environment, then this spurs the development of Real Estate Securitisation. So, in times where yields are low, asset values are high, banks do not want to commit financings (lagging down turn in the financial cycle), no investor can afford to buy and no asset holder wants to sell, then there is potential for new vehicles.

5. *Competitive Advantage of capital markets funding over traditional private market funding*

The choice of capital markets funding over private funding is typically interest rate driven. If a company is using capital markets financing, this should be at least as cost effective as borrowing from a bank – in fact the average interest rate should be lower, as the transaction costs with capital market financings are higher. Hence, if Real Estate Securitisation compared to a bank loan is more competitive, then Real Estate Securitisation will evolve.

6. *Trend to Disintermediation*

The overall disintermediation trend of traditional financing institutions, the thrive for more efficient funding, and thus the shift from credit to capital markets drives the evolution of public markets for real estate (debt and equity). The general rule: *'Whenever there is a funding arbitrage between private and public markets, public real estate debt markets will disintermediate private lending markets.'*

7. *Previous Experience and Investor Involvement*

A history of bond market instruments or other related capital markets products are favourable for the evolution of Asset-Securitisation, as prior experience can be adapted, investor experience can be assumed and best practice transfer can happen.

8. *Policy Maker inclination to creating an Asset-Securitisation market*

A conviction of legislators and regulators that Securitisation is a desirable development for the local financial market is a strong driver. If the policy makers' approach is to be oriented at the economy's higher good, to be flexible, and thus to be open to new capital market innovations, then this will help the market develop at a very fast pace. The overall benefit for policy makers is that public debt markets generally exercise a greater discipline than private lending markets. Hence, this reduces pro-cyclical loan commitment and the overall risk for the financial system.

9. *Country's overall Standing*

If a country/region is recognized for its clear goal definitions with respect to the government's influence on the economy, the banking system, the

currency and the country's/region's reformation ability, as well as its continuity with respect to the regulatory system and approach, and the legal, tax and accounting framework, then this country is viewed favourable by international investors to invest into it.

Timing

As most things in the world, the evolution of Asset- and Real Estate Securitisation comes in cycles. The inception is dependent on a specific timing that relates to the state of other cycles. For the case of commercial real estate, the timing is dependent on the state of the financial industry's cycle (i.e. the state that banks are in and their competitive situation) and the real estate cycles (i.e. physical and financial cycles).

The usual sequence in the evolution of an Asset-Securitisation market is:

1. Financial Crisis
2. Credit Crunch
3. Strong Government Involvement
4. Real Estate/Commercial Mortgage-Backed Securitisation market

Also, the length of the evolution cycle can vary over different countries as it is dependent on the favourability of the different environments in each country and on government support. The evolution cycle in the US was a lot longer than in Singapore or Europe. The reason was that global Asset-Securitisation started in the US with the inception of the Mortgage-Backed Security market. The US development could not relate to any other development, whereas the markets in Singapore and Europe could look back to the US experience. In addition to that, markets with a good, sound and favourable framework evolve faster than others, as can be observed with the case of Singapore.

Apart from that, there is a right timing for the right products. Generally timing, transaction structures and transaction schemes evolve in a certain order determined by the following questions:

1. What is most desperately needed to be financed?
2. What assets are readily available?

3. What Structure/Scheme is widely accepted?

Also, looking at the evolution pattern of transaction schemes it can be derived that:

1. The first transactions that mark the true start a market are always property-related, i.e. it is usually a single property or its cash flows that get securitised. The properties are usually great properties with government or other highly rated credit tenants. Typically, the financing volumes are very high and the overall financing offers an advantage, as compared to the traditional bank market. – This is considered Real Estate Securitisation.
2. Multi-Borrower and Multi-Asset transactions evolve out of the Single Asset/Single Borrower deals. The transactions might still be property-related, but are increasingly structured into mortgage loans (Large Loan/European Conduit-CMBS). – This is still considered Real Estate Securitisation.
3. Bank- and Insurance-originated mortgage loan Securitisations follow the second phase. Assets are exclusively mortgage loans that have been originated for the companies' balance sheet. Those loans are sold to relief the balance sheet from regulatory equity requirements. – This is considered Commercial Mortgage-Backed Securitisation.
4. In a standardized market, Securitisation vehicles for small real estate financings are created. Assets are exclusively small mortgage loans that have specifically been originated for Securitisation. This requires, standardized and stringent underwriting criteria, strong covenants, and a functioning mortgage origination and trading market. – This is considered Commercial Mortgage-Backed Securitisation.

The preceding analysis shows how Asset-Securitisation markets and their transaction schemes with respect to real estate develop. The development of new schemes does not necessarily mean that other schemes vanish. So, in most cases Real Estate and Commercial Mortgage-Backed Securitisation markets exist side by side.

Generalized Market Evolution Model

From the preceding breakdown of the Asset-Securitisation frameworks and the analysis of Real Estate Securitisation in the respective countries, a '4-stage Evolution Model for Real Estate Securitisation Markets can be derived':

Stage 1: Experimental Stage

- a. New structure development
- b. Market opening: small market
- c. Small market volume (i.e. new issuance)
- d. Local development
- e. High structural uniqueness – very strong innovative activity
- f. High structural flexibility / unstandardised
- g. High costs / expensive transactions (high interest expenses & very high structuring fees)

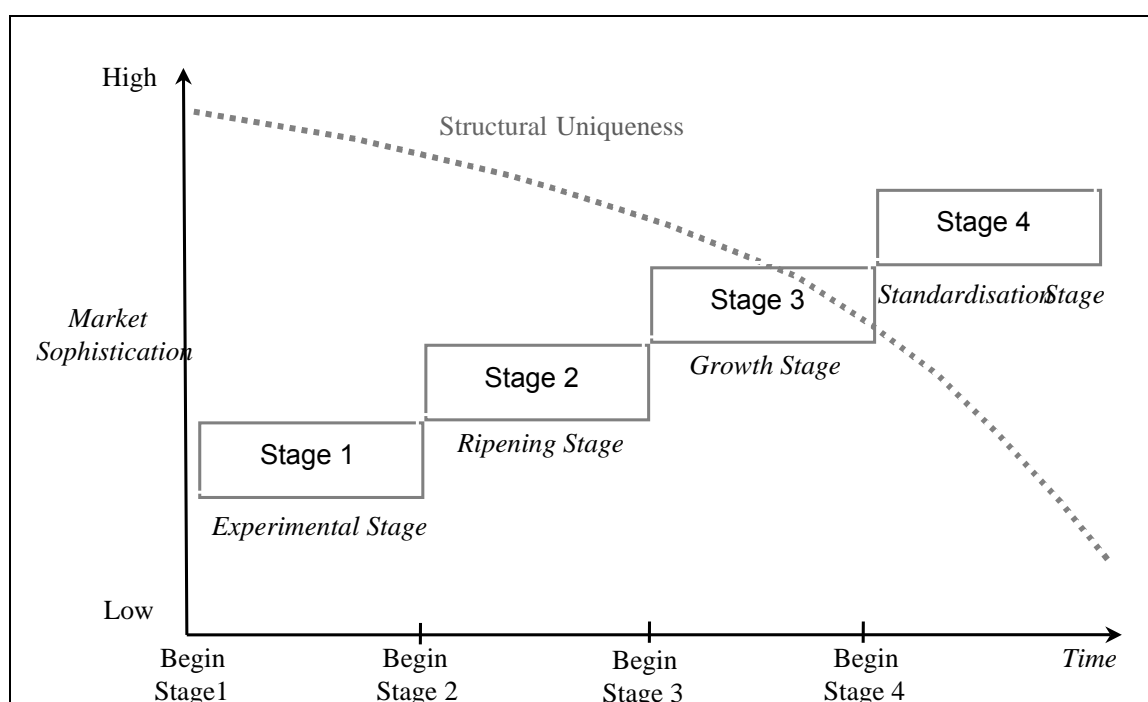


Figure 46: 4-Stage Evolution Model for Real Estate Securitisation Markets

Stage 2: Ripening Stage

- a. Structure ripening/enhancement (still unique, but rethought and adapted)
- b. Market broadening
- c. Growing market volume (i.e. new issuance)
- d. Starting internationalisation
- e. Still relatively high structural uniqueness, but decreasing – innovative activity still strong
- f. Relatively high structural flexibility / partly standardised
- g. Costs are less, but still higher compared to traditional bank financing

Stage 3: Growth Stage

- a. Structure evolution/assimilation (international standards)
- b. Strong market growth
- c. Relatively large market volume (i.e. new issuance)
- d. International recognition
- e. Strongly decreasing structural uniqueness – slow innovative activity, assimilation to internationally recognised structures
- f. Structural flexibility is declining rapidly – increasing standardisation
- g. Costs decrease and can compete with traditional bank financing

Stage 4: Standardisation Stage

- a. Structure standardisation (all transactions are the same)
- b. Matured market
- c. Large market volume (i.e. new issuance)
- d. Global product
- e. No innovative activity – bulk transactions
- f. No structural flexibility – total standardisation / high covenants for borrowers/originators
- g. Costs are lower than with traditional bank financing

Generally, markets with strong government involvement and a favourable framework that is embracing Asset-Securitisation grow and evolve faster and stronger. As a result, it must be in policy makers' best interest to guarantee an

effective framework for Asset-Securitisation if they want to strengthen the local financial system and the most efficient allocation of capital.

4.5.2 Influence of Environments on the Market

Each of the environments identified in the theoretical framework for Asset- and Real Estate Securitisation markets had a different influence on the respective markets – sometimes stronger, sometimes weaker. Generally, however, it is valid to state that there are some environments that are more crucial to the inception, evolution and further development of a market than others. Looking at the three case studies one can derive the following statements:

- The overall framework in Singapore was favourable. This led to a fast evolution of Real Estate and Asset-Securitisation in the city-state.
- The overall framework in the US is one of the most favourable in the world.
- The overall environment in Europe was characterized by a lot of obstacles and a multitude of jurisdictions – the framework was not favourable.

1. Legal and Regulatory Environment

Depending on the country and the general legal and regulatory framework with respect to capital markets, the legal and regulatory environment can be most important or medium important (but still crucial). In the US, most legal and regulatory issues with regard to Asset-Securitisation have long been settled, before the start of Real Estate Securitisation. So, if prior to the introduction of Asset-Securitisation, the legal framework has been favourable as in the case of the US and the UK, then the environment is not the most important. However, if there is no adequate legal and regulatory system in place as in the case of Singapore, then the regulatory and legal environment become the most important part in the framework for an Asset-Securitisation market. In Singapore the goal of the government was to reform the fiscal and regulatory system in order to give a freer rein to the market dynamics.

2. Tax Environment

The tax environment is crucial for the success of the market. Even if the regulatory and legal environment might be good, if the tax environment is unfavourable, it will hold the market up or even choke the market.

In general Securitisation structures should aim at being tax-neutral and special purpose vehicles should be tax transparent. If this is not the case, then Securitisation becomes very difficult and the market development is held up. Hence, if the legal and regulatory policy makers decide on favouring the legal and regulatory environment, they should also create solutions for the tax environment.

In Singapore, the tax structure and especially tax incentives for bond investments have given a strong push to the internationalisation of the Singapore bond and Asset-Securitisation market.

In Europe, the tax environment has been a withholding factor for the evolution. So, it has had a strong negative influence on the development of the market. Only Luxembourg, with the new Securitisation law, has created a stringent and integrated Asset-Securitisation solution over all different environments.

In the US, the Real Estate Investment Conduit (REMIC) structure has setup a framework that has spawned a new generation of CMBS that had a broader appeal to investors and issuers alike.

The tax environment has to be favourable for Real Estate Securitisation to evolve. A strong tax environment is an accelerating driver in getting the market off the ground.

3. Accounting Environment

The accounting environment may have played a decisive role in some markets (e.g. Singapore), due to local rules, but in short or long all 'Generally Accepted Accounting Principles' (GAAP) standards will converge – either into US GAAP or IFRS. And then the influence of accounting on the evolution of Real Estate Securitisation markets will be small. So therefore originators and arrangers have to take the accounting

environment as a given and have to work around it. For the structuring part of a transaction the accounting environment will play an important role with respect to the originator's motives, but with the convergence of accounting standards the overall development of the market will not be influenced by this. Apart from that, off-balance sheet treatment is and should not be the primary objective in Real Estate Securitisations.

4. Investor and Rating Environments

The investor and rating environment are the most important environments from the market (demand) side.

- ***Investor Environment***

Transactions have to be adapted to originators needs on the one side, but on the other side they have to be tailored to fit investors' needs. Also, an adequate investor demand and the thrive for new investment alternatives is an important prerequisite of an Asset-Securitisation market (e.g. Singapore, UK and US).

Investors can have a strong influence on the evolution of the market, but also on the structural development of the market. On the one hand, if investors do not accept the market, the market will not evolve. On the other hand, if investors do not like the structure or are not comfortable with the complexity of instruments, then those transaction structures or schemes will vanish. All in all, investor demand is driven by the security of the assets, by spreads and yield-pickups.

- ***Rating Environment***

The rating environment has been the key to the success of Asset-Securitisation as a global product. If it hadn't been for the rating criteria and rated issuances, investors would probably never have bought Asset-Securitisation bonds. In addition, rating agencies have led the market to more uniform mortgage-loan origination and underwriting standards. Due to their position and the oligopoly in the market rating agencies, today, have a strong influence on transaction structures, schemes, originators and investors.

5. Real Estate, Local and Cultural Environment

The Real Estate, Local and Cultural Environment is the residual in the overall Real Estate and Asset-Securitisation framework. However, the Real Estate Environment should be viewed and portrayed as a separate Environment, as it has different implications for the evolution than the Local and Cultural Environment, even though all three overlap.

- ***Real Estate***

It is important to look and consider this environment, because it is important for the timing of the market. The real estate environment can be a driver for the inception of the market. Especially in physical market down cycles and lagging financial market down cycles, the implications for the successful establishment of a Real Estate Securitisation market is great.

- ***Local and Cultural Environment***

The Local and Cultural Environment need to be considered when setting up the market, when creating transaction schemes and developing investor bases. Local environments can be an obstacle to the evolution and can have an influence on the structures, as has been demonstrated in the case of Europe.

In some countries (e.g. Singapore, Countries in Continental Europe) the culture and the local market play an important role in the setup of the market. So, for market innovators the culture and the local peculiarities are set in each local environment and Asset-Securitisation has to evolve around it.

Transactions in Singapore, for example, incorporated unique local structures tailored at local investors and the local market. Local developments and the local framework were one drivers for the inception of the market.

One could argue that the investor and rating agency environments are even more important than the regulatory and legal environment, because if rating agencies do not rate it and investors won't buy it, then it does not get sold. This

is true, however, on the other side without a functioning legal and regulatory environment, it would never come to a ABS/CMBS issuance (supply side). So, in essence both are the two sides of one medal. The regulatory and legal environment create the framework from the supply side and the investor and rating environments create the framework from the demand side.

The other environments have an influence on the timing of the inception and the success of the development but overall they are workable. However, if the regulatory and legal, investor, or rating agency environment is not working the market will not evolve.

Assorting the environment relative to their importance for the overall market evolution, the following list can be displayed:

1. Most important and crucial to the evolution – prerequisites for market evolution
 - Legal and Regulatory Environment
 - Investor Environment
 - Rating Agency Environment
2. Important for the timing of the market inception
 - Real Estate Environment
3. Important for a fast development, but not crucial for overall evolution
 - Tax Environment
4. Need consideration
 - Local and Cultural Environment

4.5.3 Core Determinants

Involvement (Sellers/Originators/Borrowers, Others)

The involvement of different parties in Real Estate/Commercial Mortgage-Backed Securitisation transactions can be divided into Borrowers/Originators/Sellers and Others.

1. Borrowers/Originators/Sellers

As explained above, the market develops in different stages of a development cycles. Hence, there is also a specific order of borrowers/originators/sellers. In the first stage the following group can be observed:

- a. Government-Linked Corporations (Singapore) or Governments directly through their Treasury department (Europe – Italy)
- b. Large Real Estate Developers¹¹⁹¹ – Olympia & York, the biggest developer at the time opened the Real Estate Securitisation market in the US. British Land opened the market in the UK and Europe. CapitaLand became one of the first and the biggest originator of Real Estate Securitisations in Singapore.
- c. Big Corporations – American Express was the first corporate to engage into a Credit Tenant Lease Securitisation in the US.

Borrowers/Originators/Sellers that become the innovators of Real Estate Securitisation markets have to be big companies with big projects and a large balance sheet because the up-front costs are very high and the funding benefit for small projects as compared to large projects are very low. At a later stage once the market has developed and has become more efficient, it gets opened to other borrowers/originators/sellers.

- d. Corporates
- e. Real Estate Developers (small and medium size)
- f. Real Estate Investors
- g. Conduit Vehicles
- h. Banks

¹¹⁹¹ In most countries large real estate developers are also investors, hence, investor developers. Thus, the real estate that gets securitised is not development real estate, but investment real estate.

2. Others

- a. Government-Sponsored Entities (US – Fannie Mae, Freddy Mac) – facilitating and guaranteeing the issuances.
- b. Government Regulatory Agencies – the RTC in the US.
- c. Rating Agencies – setting standards and rating transactions.
- d. Investment Banks – Arrangers like Salomon Brothers or Nomura that brought forward the markets in Europe and the US. Investment banks are generally an important catalyst for the shift from credit to capital markets. Where there is profit potential investment banks will engage and become innovators in that field. As a rule of thumb, an increased investment banking activity in a specific geographic or sub-asset class market hints to a strong development of that market in the near future.

Asset Requirements

Asset requirements relates to the question of what the attributes of a real estate asset or a property have to be in order to qualify for Real Estate Securitisation. Overall, the Assets have to be acceptable to bond investors.

1. High grade properties → ‘Flagship’/‘Trophy’ properties (primarily retail and office). Only high yielding properties qualify.
2. Long term leases and predictable cash flows. Only properties with good quality and stable income qualify.
3. There have to be sufficient property cash flows to service the bonds and to account for credit enhancement.
4. Good credit tenants.
5. In the case of assets that are receivables from yet to be built residential development projects the following criteria has to be fulfilled:
 - a. The project has to be substantially sold.
 - b. Its construction costs have to be fixed.

Real Estate Asset Classes

“But certainly if real estate owner do not have a lot of choices for financing or are looking to liquefy their position, then by all means you can securitize cash flows from real estate – just as you can with cash flows from anything else.”¹¹⁹²

For Real Estate/Commercial Mortgage-Backed Securitisations, there are five different attributes of a transactions with respect to the asset in the transaction:

1. The Type of Asset

- a. Mortgage Loans
- b. Credit Tenant Lease
- c. Physical Real Estate Assets (i.e. buildings and land)
- d. Current and Future Real Estate Receivables
- e. Receivables from future residential development sales proceeds
- f. Operating Companies (a European specificity).

2. The Cash Flows Supporting the Bonds

The cash flows that support the bonds are different in transactions that securitise different assets:

- a. Interest and Principal Payments from a loan
- b. Credit Tenant Lease Cash Flows
- c. Cash Flows resulting out the Property
- d. Lease Cash Flows and Future Sale Proceeds
- e. Progress payments on residential developments (condominiums)
- f. Cash Flows from Operations (including lease cash flows).

¹¹⁹² Cf. Robinson (2003), Interview 9, p. 554.

3. The Type of Collateral/Security in the transaction¹¹⁹³

- a. Mortgage – the SPV holds a first lien (mortgage lien) on the underlying property. This is the most legitimate and cost efficient way to secure claims on real estate. Investors do not want to own the property, they want to own the first right to the cash flow.
- b. The Property – the SPV holds the title to the property (fee simple)
- c. Strength of the Operating Company and the Property as additional security – the SPV is the owner of the Operating Company

4. The underlying Property Type

The underlying property types differ from country to country. However, the most dominant property types are:

- a. Office
- b. Multi-Family (including Residential Developments)
- c. Retail

Additional property types include:

- d. Industrial
- e. Hotel
- f. Healthcare (only Europe)
- g. Social Housing (only Europe)
- h. Pubs and other operating real estate (only Europe)

5. Property Category (in sequence of securitisability)

- a. Investment Real Estate
- b. Corporate Real Estate
- c. Development Real Estate (very little)

¹¹⁹³ The difference between asset and collateral has been described in an earlier part of this chapter.

Even though Development properties played a role in Singapore, it is however unlikely to see Real Estate Securitisation in combination with development funding anywhere else. For one this is because it was residential condominium property, for two it was Singapore and for three there are only few commercial development projects that are sold in advance piece-by-piece.¹¹⁹⁴

Real Estate Financing is about choices and Real Estate Securitisation might be one choice in that spectrum. It is definitely not suitable for everybody and every piece of real estate, but it is an alternative for properties that qualify and borrowers that might face an situation with not many financing choices.

General Motives/Motivations

Generally Real Estate Securitisation can be used as a divestment vehicle (a way to monetize on the physical real estate asset) or as an innovative financing instrument. Depending on the ultimate motivation, the motives for doing a transaction change.

1. Real Estate Securitisation as a divestment vehicle

- Creation of liquidity through an asset divestment
- Property Monetization
- Balance-Sheet Management (Off-Balance Sheet Financing)

2. Real Estate Securitisation as an innovative financing instrument

- Diversification of funding sources
- Cheaper funding
- Non-recourse, long-term funding
- Efficient execution (in mature markets)
- Opportunity to bring forward cash flows from future receivables
- Higher Loan-to-Value (in specific cases of Credit Tenant Lease Securitisation)

¹¹⁹⁴ Cf. Ho (2003), Interview 6, p. 554.

Also in case of a bank participating in a Portfolio-CMBS, or in case of a developer securitising receivables from future sales proceeds the motives can be different.

3. Portfolio-CMBS as a bank instrument:

- Relief of regulatory capital
- Funding for high Loan-to-Value loans

4. Real Estate Securitisation to fund development projects:

- Reduction of construction funding costs.
- Unlocking value tied up in development projects.
- Creation of liquidity to buy new land.
- Monetization of projects to fund new ones.

But even if Real Estate Securitisation is chosen to divest the asset, then off-balance sheet treatment is not guaranteed. So, it comes down to two scenarios:

- If divesting the asset, but sharing the upside and being able to control the asset at a later stage are important to the originator, then the originator has to accept that the transaction will be on-balance sheet.¹¹⁹⁵
- If the originator wants to divest the asset, without keeping any interest in the property, then the property will go off-balance sheet.

Hence, it is a conflict of objectives; everything at the same time is not achievable. All in all off-balance sheet treatment must not be the primary driver for choosing Real Estate Securitisation. The tougher the accounting rules are, the harder it will get to achieve off-balance sheet financing.

Generalized Transaction Schemes

One has to distinguish between the Singapore structure and all the other schemes in the US and Europe. Singaporean Real Estate Securitisation securitised physical real estate assets from developers' and investors' balance sheets. In that respect the Singapore structure is unique. International

¹¹⁹⁵ Control by the use of options and upside participation by investing into the junior tranche and the use of preference shares.

investment bankers tend to deny that the Singapore transactions are 'true' Securitisations.¹¹⁹⁶

In addition to that a distinction can be made between physical real estate/property related, credit tenant related or mortgage loan related Asset Securitisations. Whereas the first two categories rather related to Real Estate Securitisation, the last category nearly exclusively relates to Commercial Mortgage-Backed Securitisation.

1. *Physical-Asset Real Estate Securitisation/Singapore Structure (Physical Real Estate/Property related):*

The Singapore structure is primarily based on Sale-Leasebacks. Therefore it is comparable with Credit Tenant Lease Securitisation. However, in some cases the Sale-Leaseback is backed by a tenant portfolio (e.g. Retail Property Securitisation). Features of Physical-Asset Real Estate Securitisation

- Two tranche structure – 2/3 senior bonds, and 1/3 junior bonds with preference shares stapled to them.
- Embedded options – call options for originators and put options for bond investors.
- Originator participation in junior bonds – sellers of assets took the equity piece position to keep a hold of the property.

2. *Single Asset/Property – Single Borrower (Physical Real Estate/Property related)*

This transaction scheme incorporates one property or one borrower. Thus, the transaction is dependent on the quality of the underlying property and the originator's credit. Large real estate companies directly issue Single Property/Single Borrower CMBS directly at the capital markets.

There are two types:

a. Single Property/Single Borrower CMBS

¹¹⁹⁶ Cf. Anonymous (2000e), p. 62.

b. Multiple Property/Single Borrower CMBS**3. Real Estate-Backed Whole Business / Operating Company transactions (Physical Real Estate/Property related)**

Transactions are based on cash flows from an operating company that are backed by underlying real estate and that are structured into a secured loan structure.

4. Sale-Leaseback/Credit Tenant Lease Securitisation (Credit Tenant related)

Those transactions are totally independent of the borrower. They are dependent on the property's tenant credit and partly on the quality of the property. There are three types:

d. Sale-Leaseback – Borrower is a Corporation: it represents the funding for a classical credit-rated Corporate Sale-Leaseback deal.

e. Built-to-Suite – Borrower is a Developer: it represents the construction funding for the built-to-suite construction of a credit tenant.

f. Outright Acquisition – Borrower is a third-party investor: it represents acquisition funding for an investor that buys a building with a credit tenant lease on it.

5. Large Loan CMBS/European Multi-borrower Conduit CMBS (Property and Mortgage related)

Those transactions incorporate multiple properties and multiple borrowers, i.e. a number of large mortgage loans on commercial real estate that have specifically been originated for the sole purpose of Securitisation.

6. CMBS – Conduit (Mortgage related)

The transaction is backed by a granular portfolio of small mortgage loans on underlying commercial property. There are two types of Conduit transactions:

a. Conduit-CMBS – the portfolio only consists of homogenous small mortgage loans.

- b. **Conduit-Fusion** – the portfolio primarily consists of small mortgage loans and a small number of large loans.

7. Portfolio-CMBS (Mortgage related)

- a. **Synthetic Portfolio-CMBS** – Only the risk of the underlying loan portfolio is transferred to the investors. The assets stay on the bank's balance sheet.
- b. **True Sale Portfolio-CMBS** – The issued securities are backed by an underlying granular portfolio of mortgage loans originated by commercial or mortgage banks.

4.5.4 Minimum Evolution Requirements for Real Estate Securitisation

This chapter outlines the minimum prerequisites that a market needs to offer in order to have a successful inception. As defined above, the most critical precondition for the inception of a Real Estate Securitisation market is the existence or the creation/drafting of:

1. A stringent and reliable **Legal and Regulatory Framework**.
2. A sound and well structured **Tax and Accounting Environment** is an important but not necessarily crucial condition for the development of a successful market.
3. A functioning **Investor Environment** and the demand for new investment alternatives.
4. A competitive **Real Estate Market** framework.
5. Other **Crucial Drivers** that lead to a market inception and to a further development.

All five issues will be dealt with in depth in the following analysis.

1. Stringent and reliable Legal and Regulatory Framework

A well-developed legal and regulatory framework is the premise of a successful evolution of a Real Estate Securitisation market.¹¹⁹⁷

- ***Legal Environment***

The primary concern for investors is the security interest. A good and reliable legal environment as it relates to bankruptcy and the institution of SPVs is the biggest prerequisite. For investors it is most important to perfect their security interest in the case of bankruptcy of the originator or borrower. In essence, the question is:

‘How enforceable is the claim that the investor has on the collateral in the event of default?’

The answer depends on the bankruptcy code, the clarity of property title and the ability to establish priority of liens on the collateral (i.e. an effective title and lien registration system). The ability to enforce foreclosure and repossession over a reasonable time period is key in that respect.

Enforceable security interest is an important but not sufficient condition for a successful market. Security interests must be transferable and investors must have the ability to perfect their security interest after transfer, for transactions involving asset sale or pledging (i.e. collateral). Above that, the transfer of interest must be at a relatively low cost. Additional legal concern are:

- The possibility of a ‘true sale’ or perfection of a security interest.
- The legal framework to establish a Special Purpose Vehicle that is bankruptcy remote.
- The legal right to transferred assets upheld even in the even of bankruptcies.

¹¹⁹⁷ Cf. Ledesma and Jirasetpatana (2001), p. 247.

Changes in the legal framework have to account for existing laws, but also need to be modified with respect to the need to perfect security interests, achieve a true legal sale and limit additional costs.

- ***Regulatory Environment (i.e. government support)***

It must be in the policy makers' best interest to foster the capital markets and thus to create a favourable regulatory environment in their country. In this respect, regulation is relating to regulated originators (banks, insurance companies) as well as to SPVs (buyers of assets and issuers of securities) and the overall financial market.

Regulatory authorities must balance their concerns for financial soundness with the need for fair, prudent and transparent rules.

2. Sound and well structured Tax and Accounting Environment

Tax and accounting issues do not influence the inception of the market, however, they have a strong impact on the feasibility and attractiveness of Securitisation transaction – i.e. the daily structuring business. If there is not a favourable framework, transactions are more hazardous and they are of a more complex nature. Hence, structuring takes longer and increases the transaction costs. For example, this happens if the issuing SPV has to be off-shore, due to tax reasons. So, there is a need for a clear framework. It does not only increase the likelihood of high credit ratings for Real Estate Securitisations, but it also decreases the economic costs to the issuer.

A sound tax environment, where the tax code allows for a Securitisation SPV not to be subject to double taxation, is the key to growth in Asset-Securitisation. If governments and policy makers want to get a Real Estate Securitisation market lifted off the ground in their country, they have to do two things:

1. The legislator has to create a sound and favourable tax environment.
2. They must set out reasonable rules on off-balance sheet treatment for GAAP purposes to fairly reflect the company's operations as analysts may use financial reports to compare and rate the company, thereby affecting its access to capital markets.

Without tax and accounting neutrality to minimize additional costs, the economics of Securitisation can be unattractive. So, those are the two things that are important for the ongoing development and the pace of the development in the future. If one of the two is not in place, the market will develop very slowly or under certain circumstances not develop at all.

3. Functioning Investor Environment

Investors are crucial to the success of a market. They have to be comfortable with buying the securities. This is dependent on the underlying assets and the cash flows that they purchase a claim to. For this it is important that the underlying properties have a track record. So, in a first step only trophy properties qualify.

However, the underlying collateral is not everything. Price and Yield are anything to the investors. They compare the product in question to their investment universe, and thus the decision about a successful evolution is all market driven. It is the question of the competitiveness of Real Estate Securitisation investments as compared to traditional real estate investments (public and private) and traditional bond investments (corporate and government bonds).

4. Competitive Real Estate Market Framework

The precondition from the real estate market side is that property investments must generally be attractive investments and that the real estate market must offer an adequate leasing framework. A landlord friendly environment helps to safeguard and predict cash flows. A prerequisite for a successful Securitisation transaction. Best are long leases with predictable rental cash flows and acceptable contractual terms that allow to predict cash flows for Securitisation (at least 5-10 years). The yields on the properties must be market driven and need to provide investors with an adequate risk-adjusted rate of returns.

5. Other crucial drivers

- a. Government involvement** – government must have an interest in the market

- b. Financial Crisis** – there must be a strain on the overall financial system and especially the banking system
- c. Credit Crunch** – loan commitments must be down, funding and refinancing of existing loans must be burdensome
- d. Real Estate Market Cycle** – downturn in the financial cycle
- e. Competitive Advantage of Capital Markets Funding** – Funding arbitrage for originators & profit arbitrage for investment banks

4.6 Chapter Summary

This chapter has demonstrated two things:

1. It has validated the research framework, by showing the evolution of the market, and by analyzing which environment influenced the market, which core determinants existed and what the patterns/drivers were.
2. It has lead to a summary of minimum requirements that offers a framework for the analysis of the German market. Hence, this offers potential conclusions on how to get the evolution of a Real Estate Securitisation market in Germany started.

Even though developments do not follow the same path in different countries, the underlying patterns give hints about similarities and show what are the preconditions for an evolution and where the evolution could start from. The analysis of the research framework has shown that it is valid for every Asset-Securitisation/Real Estate Securitisation market. It has also shown that there are local and regional differences due to unique environments. Hence, the research framework is valid, but the environments and core determinants have to be adapted to local peculiarities and local needs. There is an optimal timing and there are certain crucial drivers that offer universal validity.

Capital markets are not the appropriate source of financing for all real estate owners, but Real Estate Securitisation may be an adequate alternative for specific borrowers/originators/sellers, with certain types of assets and collateral, that follow certain set of motives.

5 Implications for the case of Germany

The following chapter will discuss the implications of the results of the international comparison analysis derived out of Chapter 4 for the case of Real Estate Securitisation in Germany.

For this Chapter 5.1 will first tackle the German environment for real estate financing (backed by an empirical lender survey), in order to show the constraints of the current environment and to proof the need for new innovative real estate financing instruments. Then, in a second step an analysis of Asset-Securitisation in Germany will lead to the answer of the question regarding the feasibility and the potential of Real Estate Securitisation as a form of financing for property companies in Germany. The summary will conclude this chapter and will offer recommendations for German policy makers.

5.1 Lender Survey – Real Estate Financing Environment

“Overall the lending environment in Germany will change dramatically.”¹¹⁹⁸

The current real estate environment is coined by constant change, consolidation and a big set of problems:

- Increasing international pressure with respect to return-on-equity (ROE) targets.
- Increased non-performing loan exposures.
- Declining bank credit ratings – hence, increased funding costs.
- Requirements of the new Basel Capital Accord (Basel II) – technical and loan exposure requirements.

Those problems and their results will be analysed and discussed in the following chapter. The assertions are supported by an empirical study (i.e. lender survey) and by analysing the recent developments in the German banking market.

¹¹⁹⁸ Cf. Corcoran (2003), Interview 12, p. 554.

The lender survey will proof some of the hypothesis formulated in the Introduction to this thesis. It will show that:

- Credit conditions will rise,
- Securitisation is becoming more important, and
- Real Estate Securitisation is not very well known, yet.

5.1.1 Study Setup

The data that the empirical study is based on was derived from a postal survey with a standardized questionnaire. The questionnaire was divided in five parts consisting of the following topics:

- Data about the responding institute
- Questions concerning the new Basel Capital Accord (Basel II)
- Credit-Risk Management
- Innovative Real Estate Financing
- Securitisation

In order to generate a higher response rate and also to get competent respondents, the surveys were sent to the bank management of the biggest 205 German lending institutes. The sample represents banks that had a balance sheet total of at least €3 bn.

The questionnaires were posted on 29 May 2003 and were requested for reply on 1 July 2003. In the second half of July 2003, a written and telephonic follow-up was conducted.

Overall 78 banking institutes responded of which 3 stated that they were not involved in commercial real estate lending at all and 22 rejected the response due to time or company policy reasons. Altogether 53 questionnaires were valid, which leads to a response rate of 25.85%.

All institutes (n=53) answered the first part (Questions 0.1 to 0.10) of the questionnaire. The responding banks can be segmented into the following categories: 15 Thrift Institutions, 11 Mortgage Banks, 7 Landesbanks, 5

Commercial Banks, 4 Mutual Savings Banks, 3 Private Banks, 2 Special Lending Institutes and 6 Others.

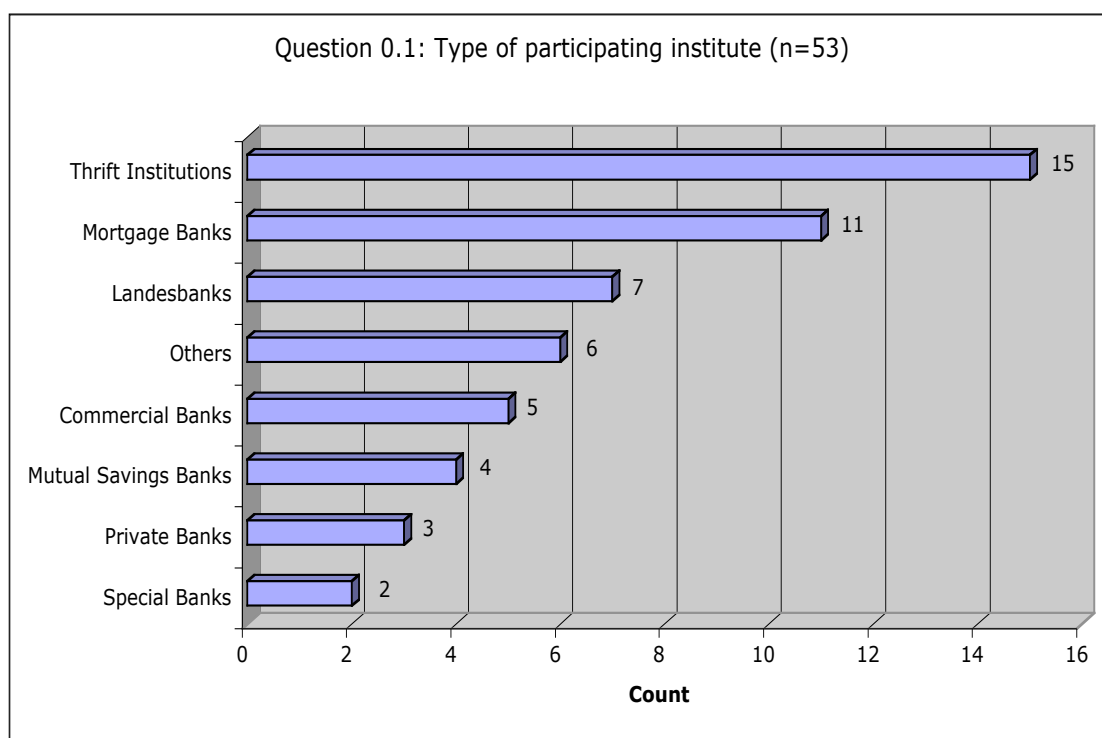


Figure 47: Participating Institutes

Source: Authors Compilation

The following analysis will relate to the key propositions of this study with respect to the overall lending environment in Germany, the influence of Basel II on real estate financing, Real Estate Securitisation and the True Sale Initiative.

5.1.2 Analysis

5.1.2.1 Current Real Estate Financing Environment

There are four main trends that can be observed in Germany that are likely to result in decreased loan commitments and higher lending spreads for real estate financing in Germany. Those are the problems of non-performing loans, the pressure of capital markets on banks to increase their returns-on-equity (ROE Problem), the cancellation of state guarantees for German Landesbanks (Landesbank problem) and the influence of Basel II on real estate financing. The first three shall be delineated in the following part and shall be put into relation to the result of the lender survey with respect to real estate loan commitments and lending spreads. Basel II will be dealt with in Chapter 5.1.2.2.

1. Non-Performing Loans / Bad Loan Problem

Traditionally German Banks have been very strong in loan underwriting, so that no alternative financing sources for debt finance could evolve. Especially during the 1990's after the German Reunification the German banks have engaged into a great lending competition that has originated a vast amount of loans at very competitive rates and sometimes even with negative spreads. Hence, the German banks (including mortgage banks) have not only underwritten a lot of loans, but they have also priced those loans so competitively that no other instrument could compete.¹¹⁹⁹

This, however, was only possible because of the Pfandbrief as the primary funding tool. This funding tool was a peculiarity of the German mortgage funding market only existed in Germany.¹²⁰⁰ Thus German banks could always fund their loan commitments at very low rates and this explains, why the German real estate borrowing rates were always lower than in the neighbouring European countries.¹²⁰¹

So, in the aftermath of the extensive loan-underwriting phase of the 1990's the German banks have lost a lot of money and are today sitting on a huge non-performing loan exposure that is weighing heavy on their balance sheets.¹²⁰² Even though the German banking industry does not admit this, there exist indications that there are more non-performing loans in the German banking market than have previously been expected. Even until April 2003, Banks did not admit that they had large non-performing loan portfolios.¹²⁰³

In recent month several portfolios of non-performing loans have been sold by German banks. This will have two effects: it will potentially strengthen the Securitisation market, as those portfolios could be securitised in the capital

¹¹⁹⁹ Cf. Day and Moore (2003).

¹²⁰⁰ The European covered bond market evolved in the UK and really only exists since 2000. Until recently there was not even a legal framework in the UK. Cf. Day (2003), p. 74; Dreesbach (2003), p. B6.

¹²⁰¹ Cf. Weber (2003), p. 3.

¹²⁰² Cf. Morris (2002), p. 52.

¹²⁰³ Cf. Anonymous (2003i), p. 1.

markets (comparable to the case of the US) and it will offer new lending flexibility to banks that will most likely result in adequate lending activities with adequate spreads comparable to other European markets.

2. ROE Problem

In recent times, banks have increasingly become a play ball of capital market investors. Their return requirements on invested stock is driving the banking market. Banks with low ROEs will become take-over targets. Hence, they will have to shift from lending activities to fee-producing activities that offer higher margins. Additionally, they will have to re-evaluate their risk-positions and together with the other trends explained in this part, it will be inevitable that lending margins will rise.

The situation is best described by the following quote: “They [the German banks] are looking wounded and their competitive slim margins are expected to widen as they look to improve their cost of return on equity. Their performance will be further affected by problems of non-performing loans at home and regulatory changes, such as the Basel II Accord, which is forcing banks to adjust the levels of reserves they are obliged to hold.”¹²⁰⁴

3. Landesbank Problem

Another problem for the German real estate financing market is that a group of providers of inexpensive long-term funding for real estate will have to raise their margins, due to decreased credit rating and thus increased funding spreads. Those are the German Landesbanks. The Landesbanks have come under strong scrutiny of the competition authorities of the European Commission (EC). The EC judged that government involvement and guarantees for the Landesbanks constitutes an anti-competitive behaviour.

As a consequence, in March 2002, an agreement was reached between the German government and the EC under which federal guarantee and maintenance obligations shall be taken away from the Landesbanks in mid-

¹²⁰⁴ Cf. Anonymous (2003a), p. 35.

2005. The government support would continue to be enjoyed by Germany's development banks (e.g. the KfW).¹²⁰⁵

The influence of the cancellation of government guarantees will result in Landesbanks being treated as all other private credit institutions in Germany. Hence, their rating will become dependent on their credibility to satisfy their liabilities.¹²⁰⁶ Under federal guarantees the Landesbank were treated as 'AAA' lending institutions and thus could fund themselves on a 'AAA' level with unsecured debt. However, as the current discussion about Landesbank rating implies, the future ratings will be well below this level and this is a critical issue.¹²⁰⁷

A lower rating for credit institutions usually results in higher funding costs. As a consequence, costs for real estate financing will increase. In addition to that, it will become more likely that Landesbanks will become active in Asset-Securitisation to bridge the funding gap.

Summarizing this part, it seems inevitable that the business model of real estate lending institutions will change in the future. The trend described in the upper part combined with the increase requirements levied on the institutions by Basel II will most likely result in less loan commitments and higher lending spreads.

This is also supported by the lender study. The two most compelling results of the lender survey are that the

- loan commitments have changed dramatically from 2002 to 2003 (Figure 48)
- more than half of the respondents (56%) believe that they can implement higher lending spreads in the future. 20% stated that they partly assume to be able to implement higher lending spreads. The results are shown in Figure 49.

¹²⁰⁵ Cf. Anonymous (2003j), p. 1.

¹²⁰⁶ Cf. Jenkins, *et al.* (2003), p. 22.

¹²⁰⁷ Cf. Anonymous (2003h); Schmid and Krosta (2003), p. 1.

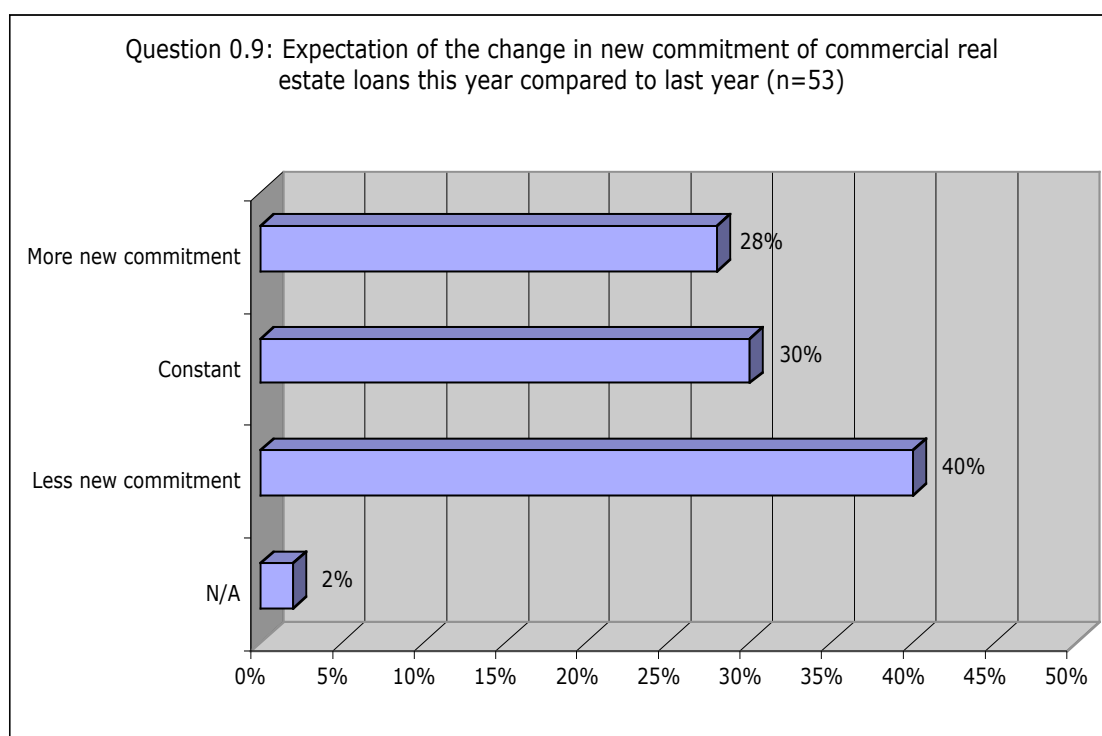


Figure 48: Commercial real estate loan commitment in 2003

Source: Authors Compilation

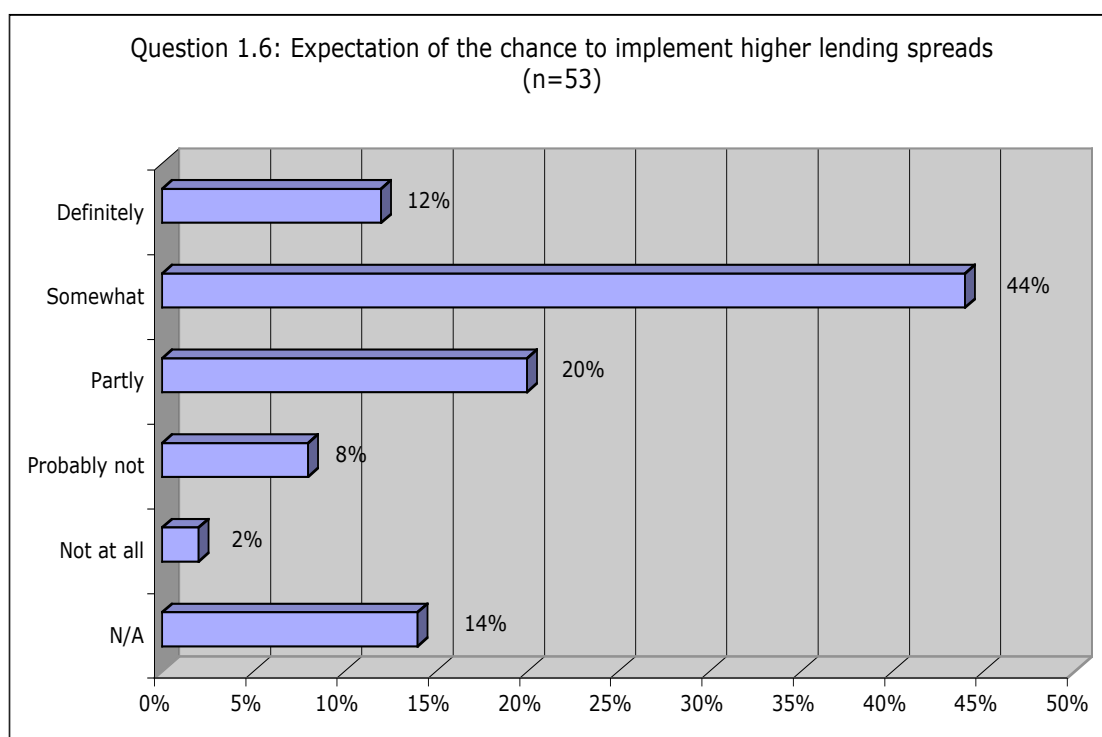


Figure 49: Development of lending spreads in the future

Source: Authors Compilation

5.1.2.2 Influence of Basel II on Real Estate Financing

Hardly any other banking subject has had such a great influence on such a broad section of Germany's political and business community as have the new rules emerging from the new Basel Capital Accord. This sensitivity is closely tied to the vast significance that borrowed capital, i.e. bank debt, has for the German economy. The fear that the funds required for investments will either rise sharply in cost or may even become completely unattainable scares the German industry. Especially the commercial real estate sector is greatly influenced by this, since it has traditionally relied heavily on bank debt and as it is traditionally long-term funding. But also the rest of the economy relies heavily on loans secured by mortgages (almost every other bank loan in Germany is collateralized by mortgages). In comparison to the US and the UK, German companies rely a lot more on bank lending than on other lending sources.¹²⁰⁸

Under the Basel II criteria, real estate lending – applying the IRB approach – falls under specialized lending, and as a result has different risk weightings relative to the different real estate category (from 'strong' to 'default'). In addition, the criteria distinguishes between income producing real estate (IPRE) and high volatility commercial real estate (HVCRE). The risk weightings for IPRE range from 75% to 625% and for HVCRE from 100% to 625%. Under the Basel Capital Accord, the risk weightings are the driver for the amount of regulatory equity applicable to a certain asset and hence the required lending spread on the asset: the higher the risk-weighting, the higher the required regulatory equity, the higher the costs to the lending institution, and thus the higher the interest costs to the borrower.¹²⁰⁹

As a result, future interest terms for high risk projects/low rated real estate will incur increasing financing costs, as lending institutions will have to account for increased regulatory equity. On the other side for low risk investment property/high high rated real estate there will be decreasing interest expenses, as lending institutions have to underlie less equity as now.¹²¹⁰

¹²⁰⁸ Cf. Dosswald (2002), p. 63; Hagen and Holter (2002), p. 52.

¹²⁰⁹ Cf. Basel Committee on Banking Supervision (2003a), p. 50.

¹²¹⁰ Cf. Pitschke (2004), p. 273.

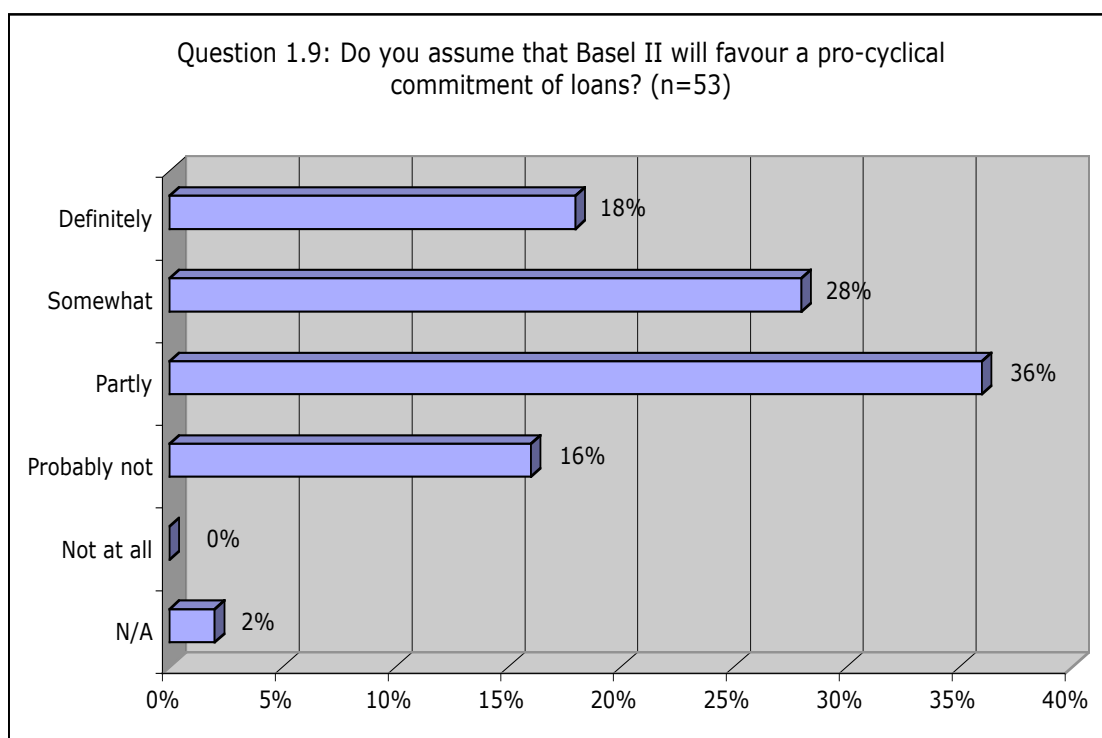


Figure 50: Cyclicity of loan commitment under Basel II

Source: Authors Compilation

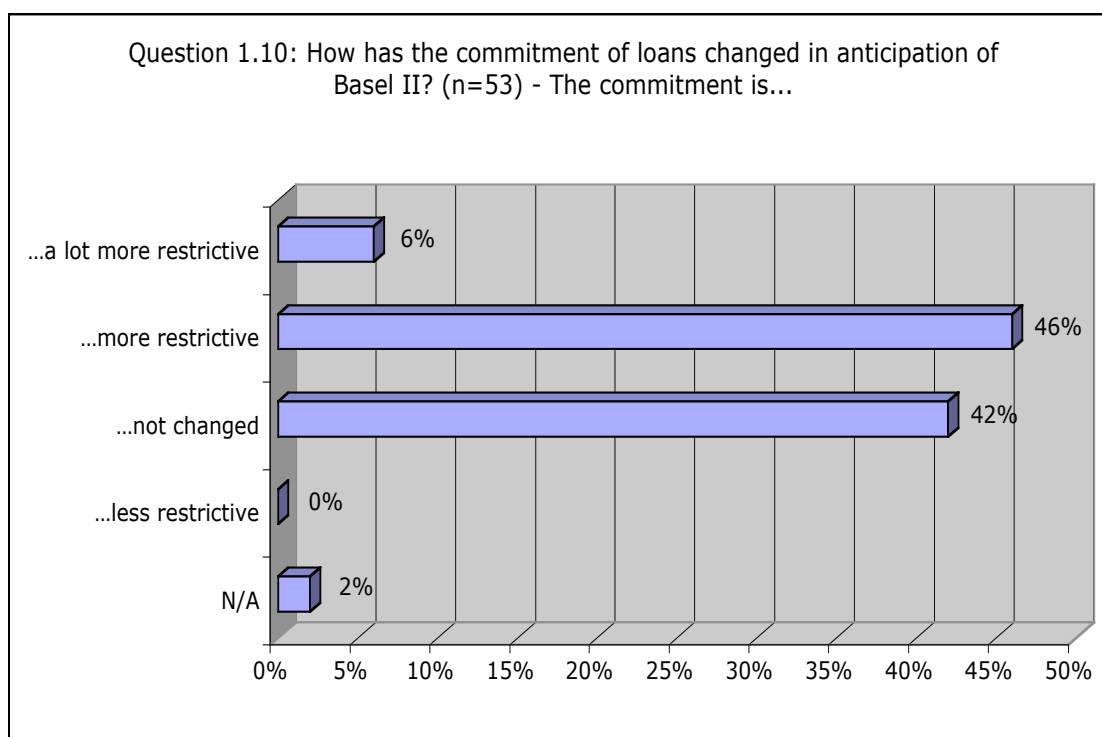


Figure 51: Scope of loan commitment under Basel II

Source: Authors Compilation

The indications are that the influence of Basel II might lead to a credit crunch in Germany¹²¹¹ but its influence on real estate lending is not yet assessable for the German property industry. However, there is a great uncertainty going around in the industry. Especially for real estate developers the new Basel II criteria might have a detrimental effect – on lending commitments, lending spreads and cycality of loan commitments.¹²¹² As a consequence, developers and other real estate companies are thriving to substitute bank funding by non-bank funding.¹²¹³

Therefore Basel II has implications for real estate financing, but also for the use of Asset-Securitisation following the introduction of the standard in 2006. The lender survey has addressed both questions.

Influence of Basel II on Real Estate Financing (Figure 50 and Figure 51)

With respect to real estate financing and the effect of the Basel Capital Accord, two results are of great importance: 82% of the lenders surveyed in the study assume that in the future pro-cyclical loan commitment will be fuelled by Basel II. 52% of the respondents have expressed Basel II has already lead them to a more restrictive loan commitment. These two facts document that the property industry's fear of not getting funding for their real estate is valid.

Influence of Basel II on Asset Securitisation (Figure 52 and Figure 53)

The questions concerning the influence of Basel II on Securitisation can be in the following figures. The first figure shows that nearly all responding market participants believe that Basel II will have an effect on Asset-Securitisation – only one respondent did not think so. The influence that Basel II might have on the use of Asset-Securitisation is documented in Figure 53. The majority (42 out of 45) believes that the number of transactions, and hence the transaction volume will rise. This leads to the conclusion that Basel II will favour the evolution of Asset-Securitisation as a funding instrument.

¹²¹¹ Even though the Basel Capital Accord does not come into effect until the end of 2006, the banks are urged to start following the Basel II Guidelines, if they want to choose the Internal ratings-based (IRB) approaches. Cf. Basel Committee on Banking Supervision (2003b), p. 1.

¹²¹² For a greater insight into Rating and Basel II confer Achleitner and Everling (2004).

¹²¹³ Cf. Wolf (2004).

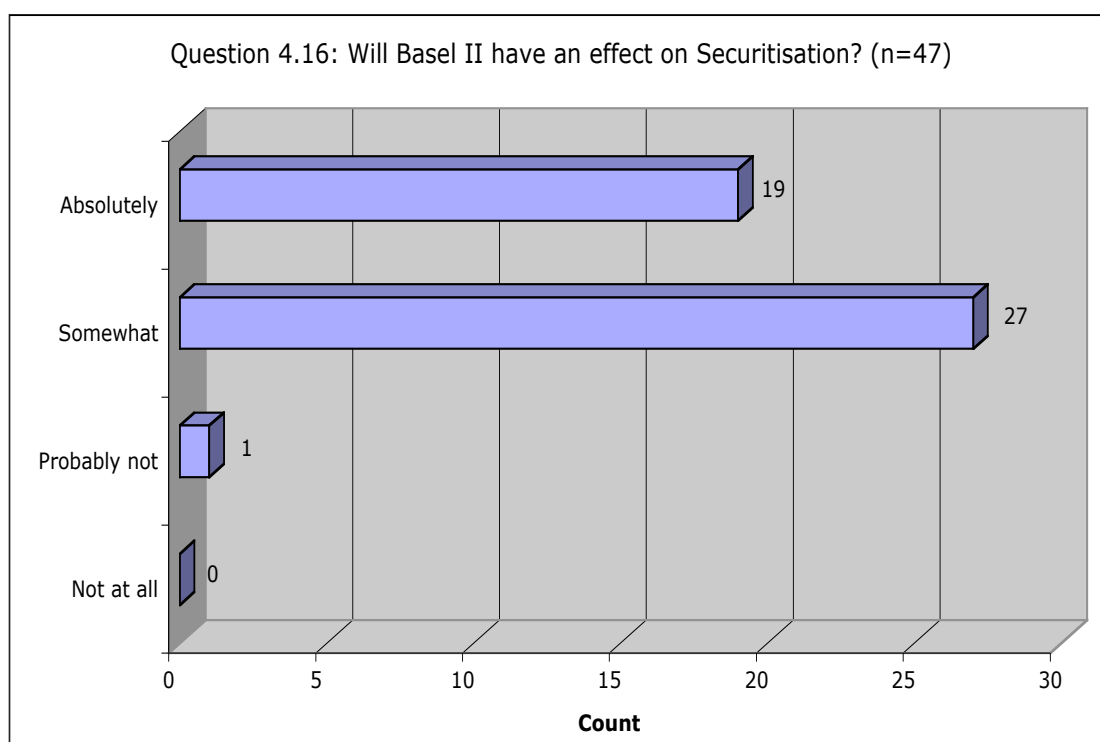


Figure 52: Effects of Basel II on Asset-Securitisation

Source: Authors Compilation

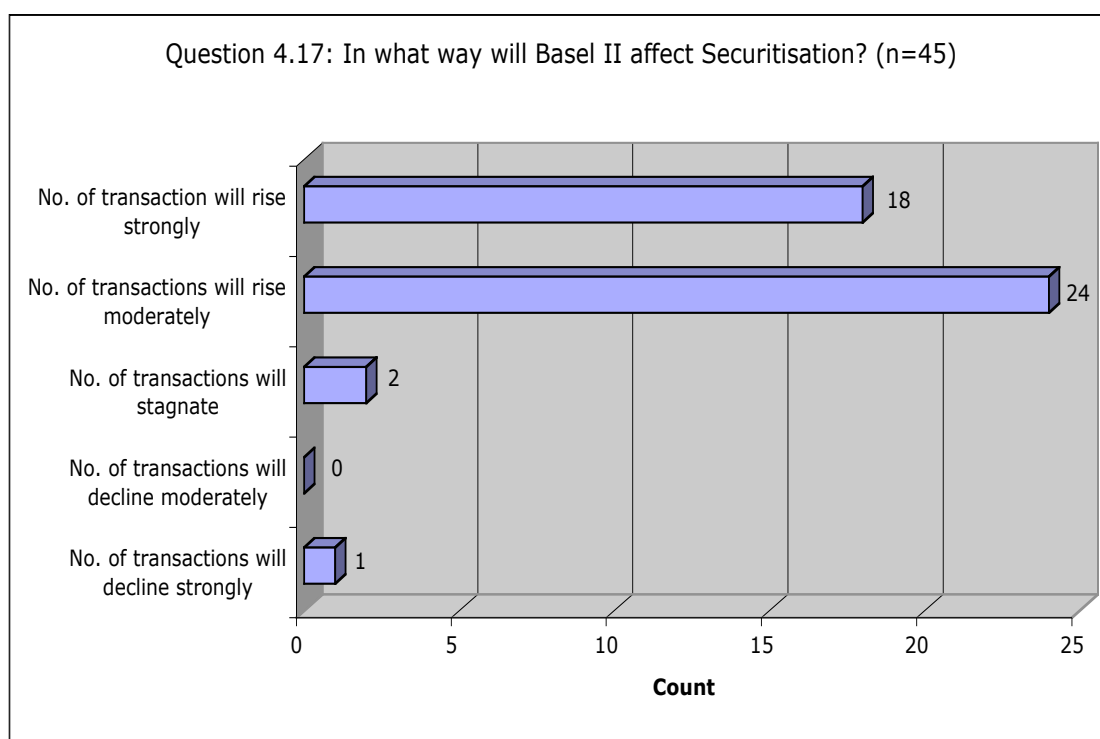


Figure 53: Scope of the effects of Basel II

Source: Authors Compilation

5.1.2.3 Real Estate Securitisation

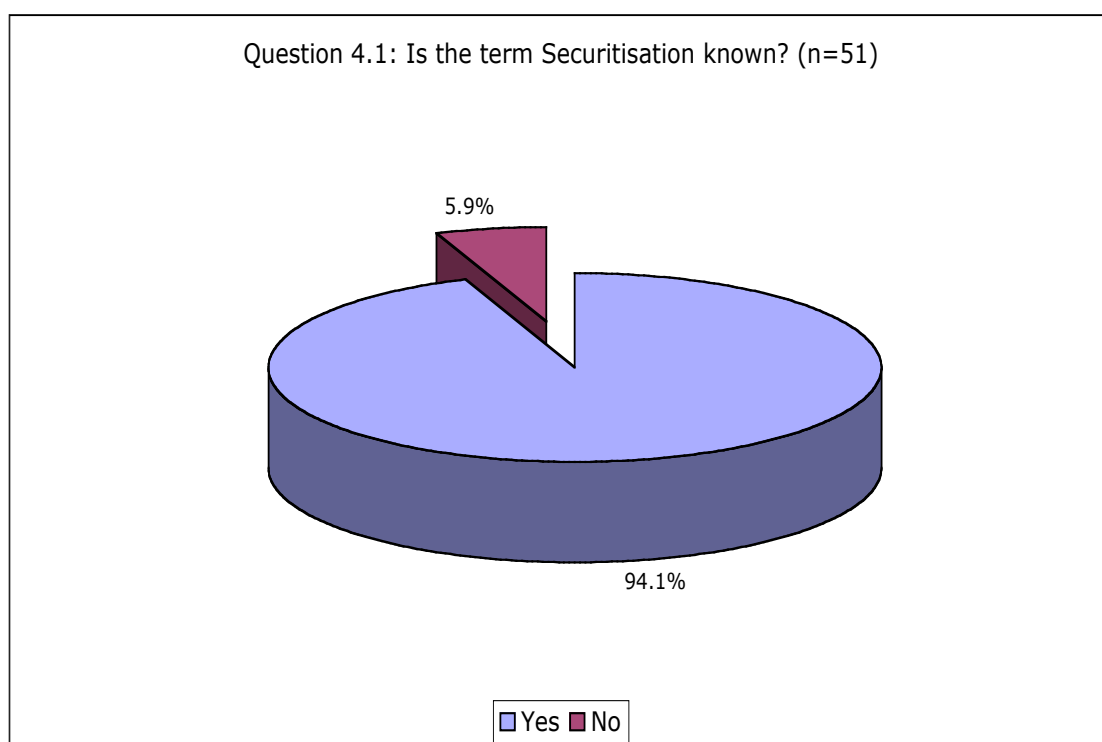
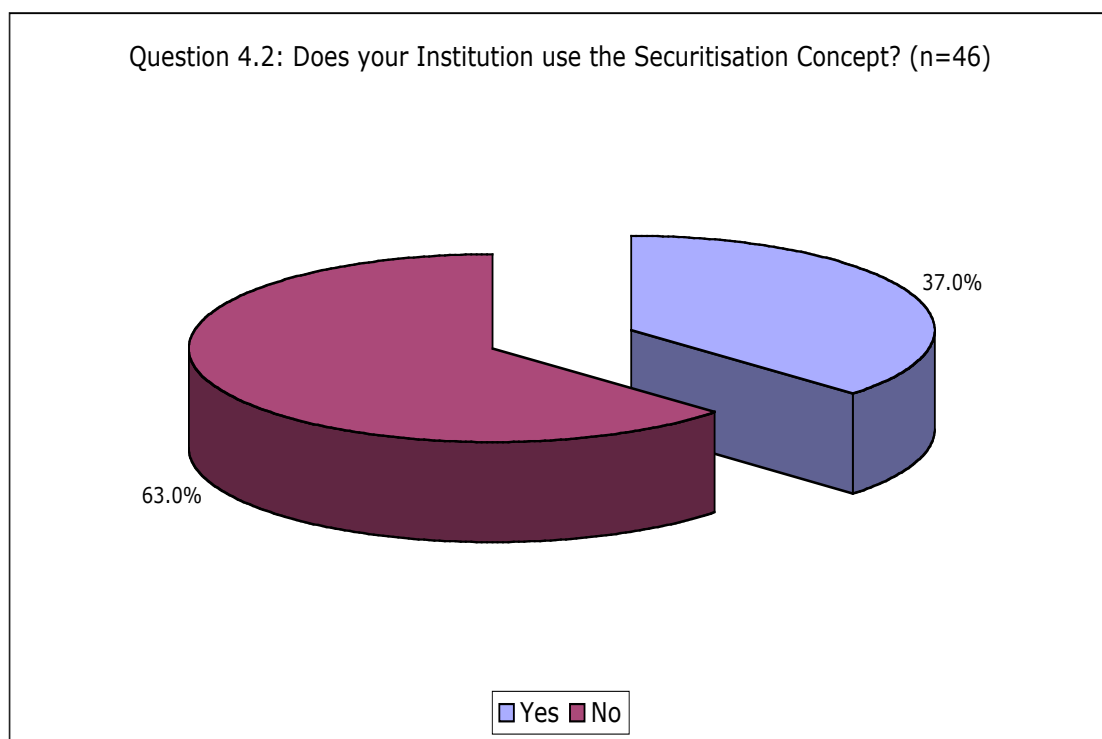
One key objective for the lender survey was to find out what the banking industry's knowledge base is with respect to Asset-Securitisation in general and Real Estate Securitisation as an innovative real estate financing instrument in specific. The results offer an insight into the question of what the state of the overall Asset-Securitisation market is and what the potential for the evolution of the Real Estate Securitisation market is in Germany. The key points documenting the trend towards Asset-Securitisation and Real Estate Securitisation will be delineated in the following part.

Asset Securitisation (Figure 54 - Figure 58)

The figures below demonstrate that the recognition for the term 'Asset-Securitisation' is very high – 94.1% stating that they know Securitisation. The market penetration, however, is quite low – only 37% of all responding institutes utilize Securitisation. This is an indication for a new and still underdeveloped Securitisation market in Germany. This analysis is totally neglecting the problem complex of Synthetic vs. True Sale Securitisations. If this was included in this breakdown, then the study would come to the conclusion that True Sale Securitisation in Germany is virtually non-existent. However, the awareness of the existence of this concept is high. During the last two years a public discussion was fuelled by the fact that there is no adequate Securitisation framework in Germany. This raised the awareness for the concept and the problems.

Figure 56 underlines this fact – 25.5% of all respondent were planning Securitisation transactions and 40.4% were considering such transaction, but were at the time of the study still undecided. For those institutes that were executing Securitisation transactions, the primary asset class constituted Mortgage-Backed Securities, followed by credit card receivables and CDOs.

One reason for the stronghold of synthetic Securitisations in Germany is the fact that true sale transactions are not feasible, due to a trade tax problem. This has also held back a lot of banks. However, the expectation is that with the trade tax problem being solved for credit institutions, the demand for Securitisation will rise. (Figure 58)

*Figure 54: Recognition of the term Securitisation**Source: Authors Compilation**Figure 55: Market penetration of Asset-Securitisation**Source: Authors Compilation*

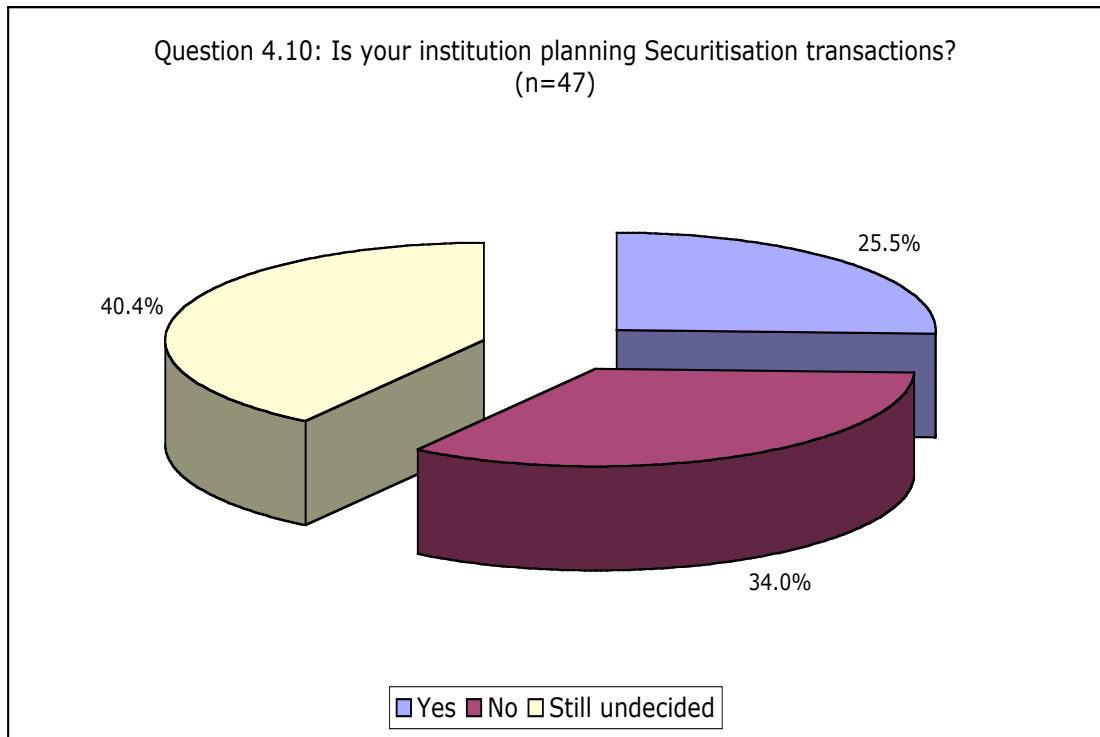


Figure 56: Planned Securitisation Transactions

Source: Authors Compilation

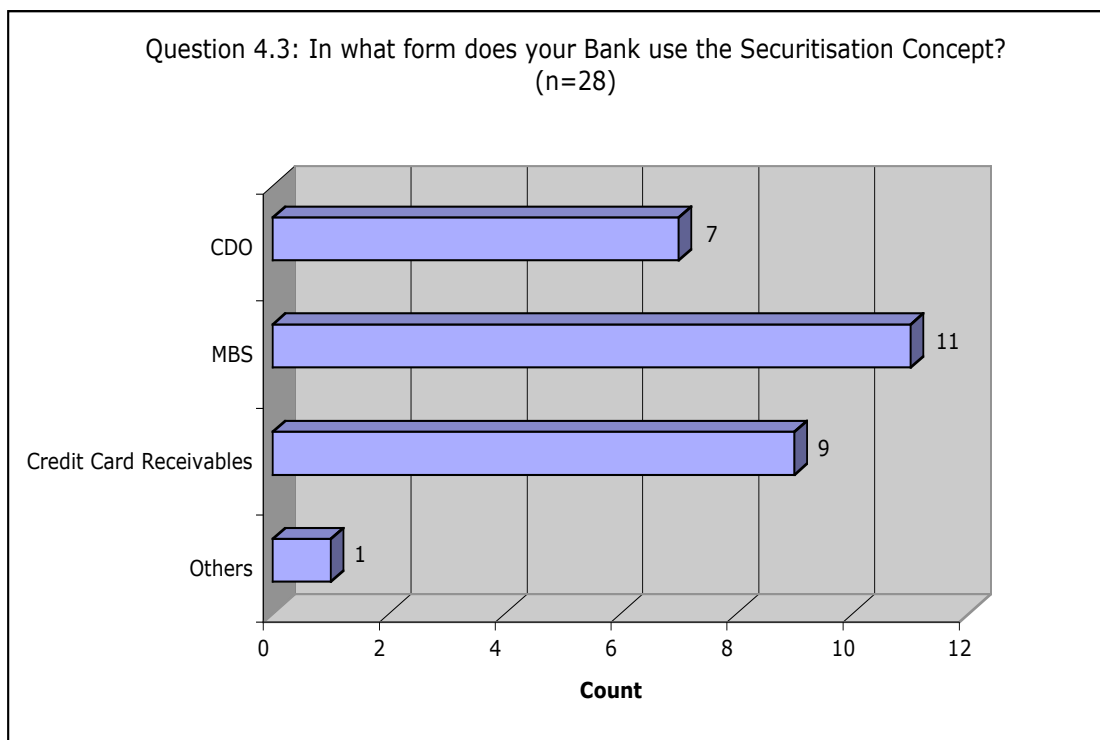


Figure 57: Utilised Asset Classes

Source: Authors Compilation

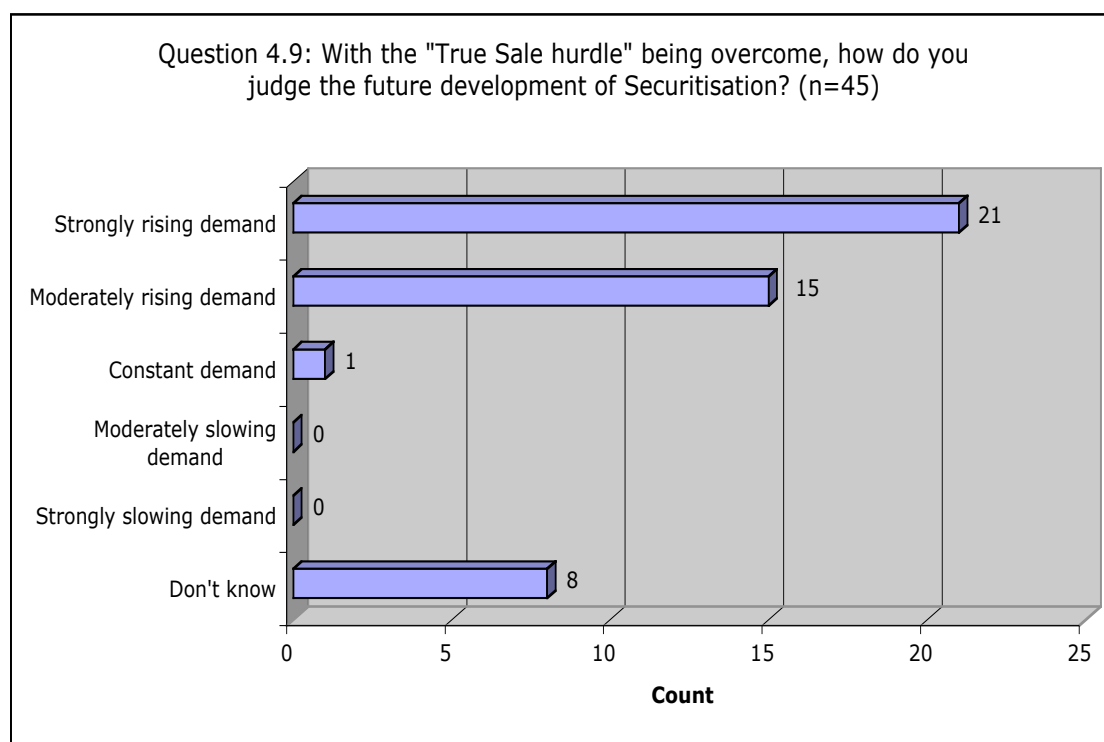


Figure 58: Future development of Asset-Securitisation

Source: Authors Compilation

Real Estate Securitisation

The awareness of Real Estate Securitisation as an innovative financing tool for the property industry and as a fee-income producing product for real estate lending institutions is still very low.

Figure 59 demonstrates that Asset-Securitisation is not yet widely considered as an innovative financing instrument. Only 23.4% stated that they have thought about offering Asset- Securitisation to their clients for financing real estate. 66% have stated that they have not yet thought about doing that.

Even though it is the real estate companies that are the potential originators of Real Estate Securitisation assets, it is the real estate lending institutions that have to offer this service as an innovative financing instrument to the property industry. For real estate lenders this has a double benefit:

1. They do not need underlie regulatory capital for those transactions.
2. They generate fee-income that offers high returns-on-equity.

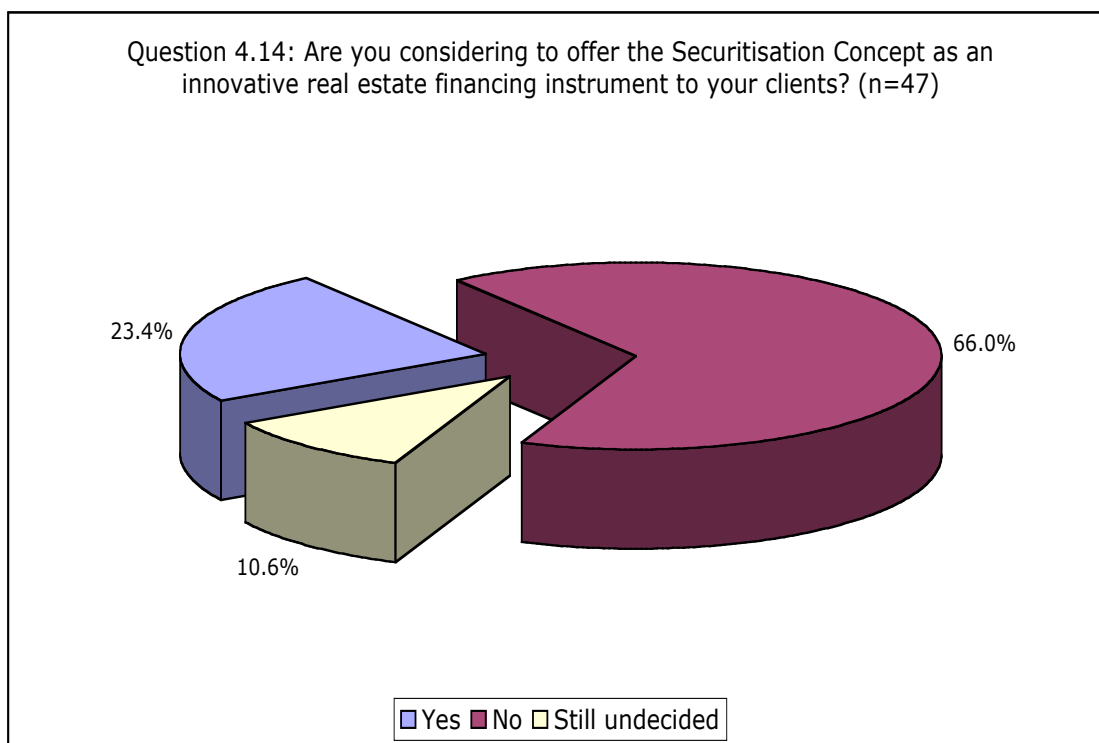
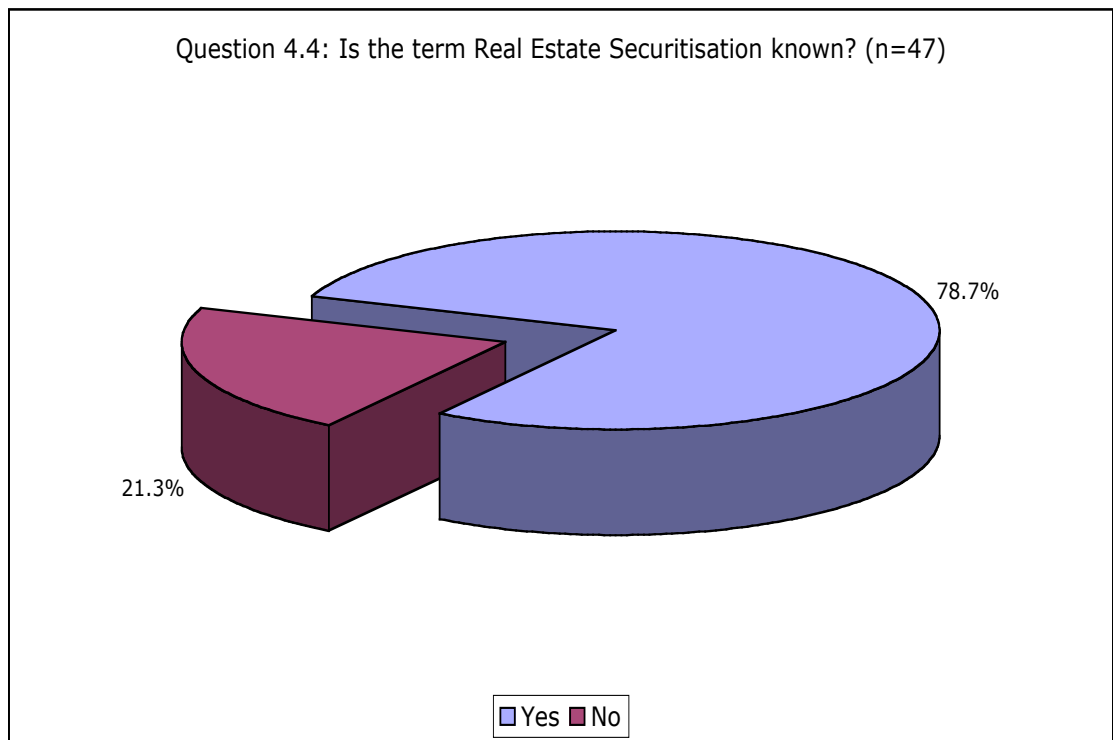
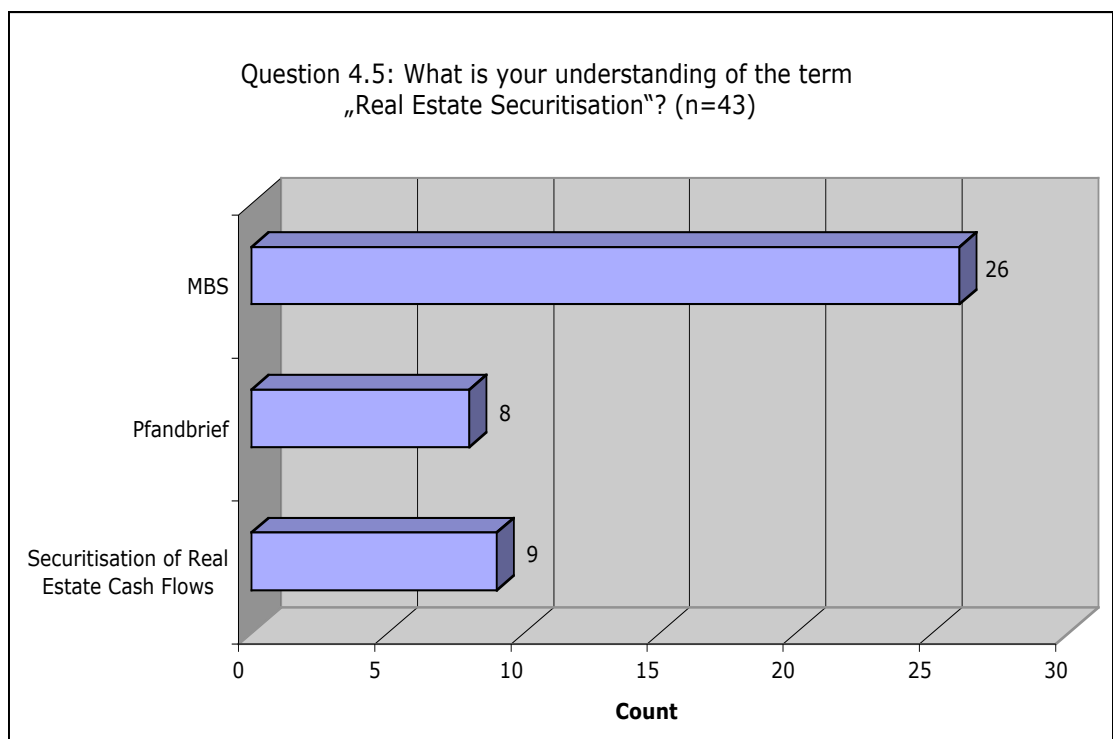


Figure 59: Market penetration of Real Estate Securitisation

Source: Authors Compilation

With respect to the recognition of the term 'Real Estate Securitisation', the result is similar to the case of Asset-Securitisation – a high percentage of respondents (78%) stated that they know the term Real Estate Securitisation. However, the understanding of the term is ambiguous, as respondents offered various explanation of what should be understood under Real Estate Securitisation. The understanding of the concept is mostly related to mortgage loan related capital market transactions. Most respondents named Mortgage-Backed Securities and Pfandbriefe as instruments for Real Estate Securitisation. Only one fourth of all respondents recognized the concept as the Securitisation of real estate cash flows. The result is comprehensible, as it is the business of real estate lending institutions to originate mortgage loans. So, their focus lies more on relief of regulatory capital and bank funding instruments than on innovative financing concepts for the property industry. Therefore, the result of this analysis leads to the conclusion that the term is not well defined and the concept not well explained in industry.

*Figure 60: Name recognition of Real Estate Securitisation**Source: Authors Compilation**Figure 61: Comprehension of Real Estate Securitisation**Source: Authors Compilation*

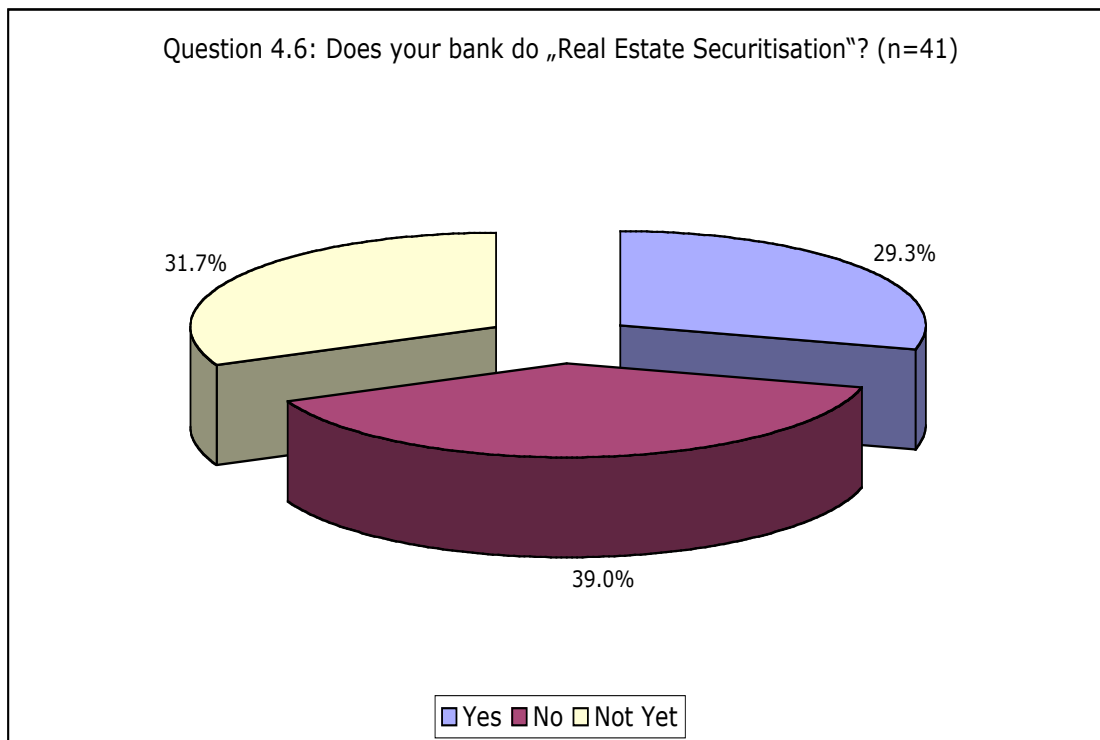


Figure 62: Use of Real Estate Securitisation in the industry

Source: Authors Compilation

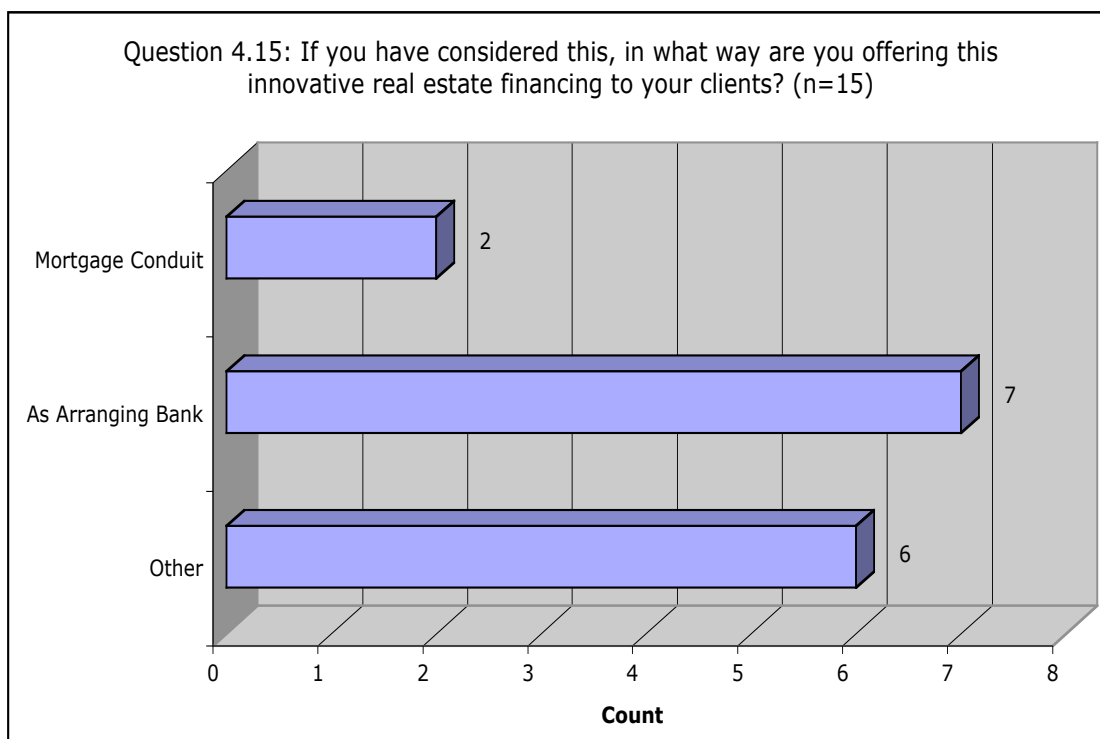


Figure 63: Bank Involvement in Real Estate Securitisation

Source: Authors Compilation

The same conclusion is valid when analysing Figure 62 and Figure 63. The uncertainty of respondents with respect to Real Estate Securitisation is proven by only a small group of respondents (29.3 %) that do Real Estate Securitisation.

Figure 63 demonstrates the banks see their involvement in Real Estate Securitisation as being the arranger of transactions. This indicates that banks are moving away from the credit business into capital markets fee-income business. Only a small number of respondents has answered that they are interested in a Conduit. This leads to the conclusion that the German market is in its very first stage.

5.1.2.4 True Sale Initiative (TSI)

“In my view, the True Sale Initiative is one of the most innovative and groundbreaking novelties that the German financial centre has produced for a long time.”¹²¹⁴

The German ‘True Sale Initiative’ (TSI) was created in April 2003 by the four big German banks: Commerzbank, Deutsche Bank, Dresdner Bank and HypoVereinsbank in co-operation with the Kreditanstalt für Wiederaufbau (KfW) – a state sponsored bank – and DZ Bank.¹²¹⁵ This was a tentative combined start to fulfil their mission of strengthening their balance sheets. The True Sale Initiative had two goals:

- To alleviate the trade tax obstacles that had restricted the development of True Sale Securitisation transactions in Germany.
- To create a joint platform to securitise corporate loans.

The first objective was achieved in mid-2003, when the German government passed a new law to exempt SPVs in German bank Securitisations from trade tax obligations (Gewerbesteuer). Apart from bank-sponsored entities, the law also applies to non-bank entities set up to purchase assets from banks' balance sheets.

¹²¹⁴ Hans Reich, chairman of KfW's board of managing directors. Cf. Day and Moore (2003).

¹²¹⁵ Cf. Anonymous (2003i).

The law was a crucial prerequisite for the institution of the TSI-platform. When the final TSI contracts were signed on 30 April 2004,¹²¹⁶ this German banking initiative was supported by 13 major commercial and mortgage banks as well as the Ministry of Finance and the KfW.¹²¹⁷ Under the programme, KfW is expected to coordinate the formation of Securitisation vehicles to finance small and medium company corporate loans and with residential mortgages in the first instance, followed by other assets.¹²¹⁸

Event though the True Sale Initiative (which is now called True Sale International) was originally founded as an organisation to foster cash Securitisation as an additional funding tool for German banks, and to provide liquidity to the German small and medium enterprise financing market,¹²¹⁹ the TSI has become a catalyst for an encouraging development in the German market, not least because it was the first time where all constituents of the capital markets – banks, KfW, the ministry of finance – agreed to bring forward the evolution of True Sale Securitisation in Germany. However, as time went on, problems arose. Until November 2004, there has just been one True Sale Securitisation via the TSI platform and it was auto loans by Volkswagen Bank. This deal was only the second German Securitisation to-date using a German GmbH as on-shore SPV.¹²²⁰

Being a vehicle for Bank Receivable Securitisations, the True Sale Initiative does not help much for Real Estate Securitisation transactions. However, it can be seen as a catalyst for the evolution of a true sale market that might also create a favourable framework for Real Estate Securitisation transactions. It is a sign for increasing government involvement, as the main partner – KfW – is a government-sponsored bank, and it is a sign for a stronger acceptance and involvement of real estate financing institutions in this field as the following figures indicate. The assessment of the TSI is positive and the majority of banks would use the TSI platform.

¹²¹⁶ Cf. Schmid (2004b), p. 19.

¹²¹⁷ Cf. List (2004), p. 8; Schmid (2004a); Schmid (2004c), p. 17.

¹²¹⁸ Cf. Rajendra, *et al.* (2004c), p. 16.

¹²¹⁹ The financing of the Mittelstand is a problem in Germany. Cf. Hommel and Dufey (1999).

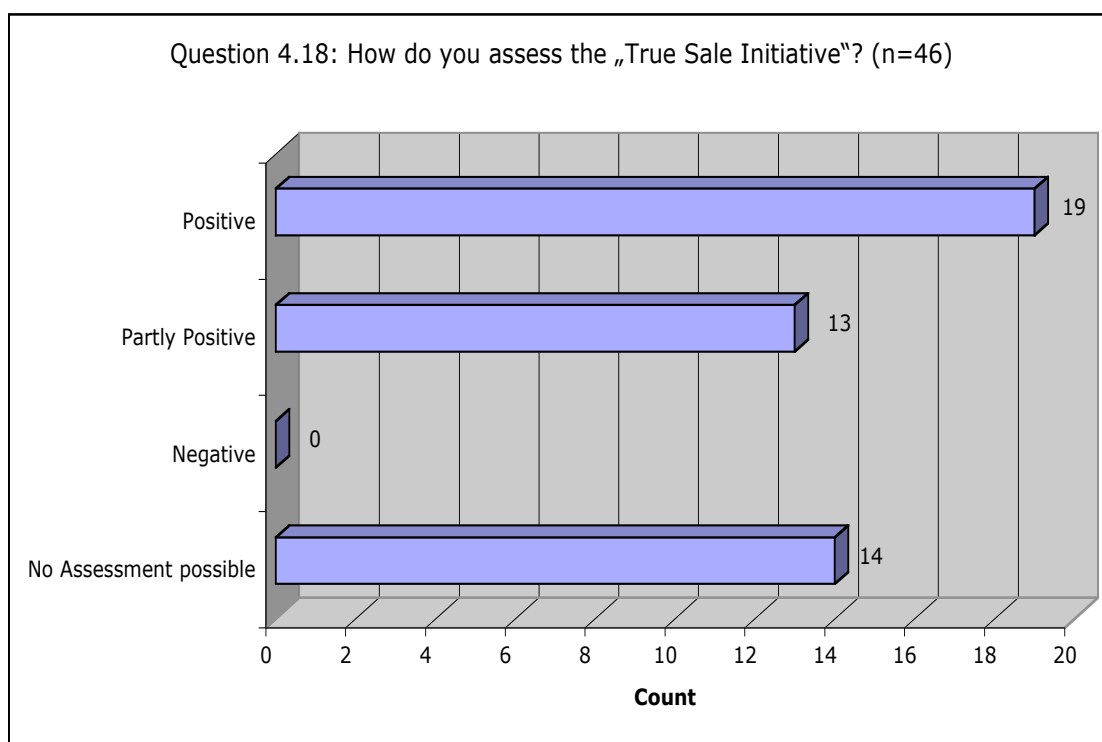


Figure 64: Assessment of the 'True Sale Initiative'

Source: Authors Compilation

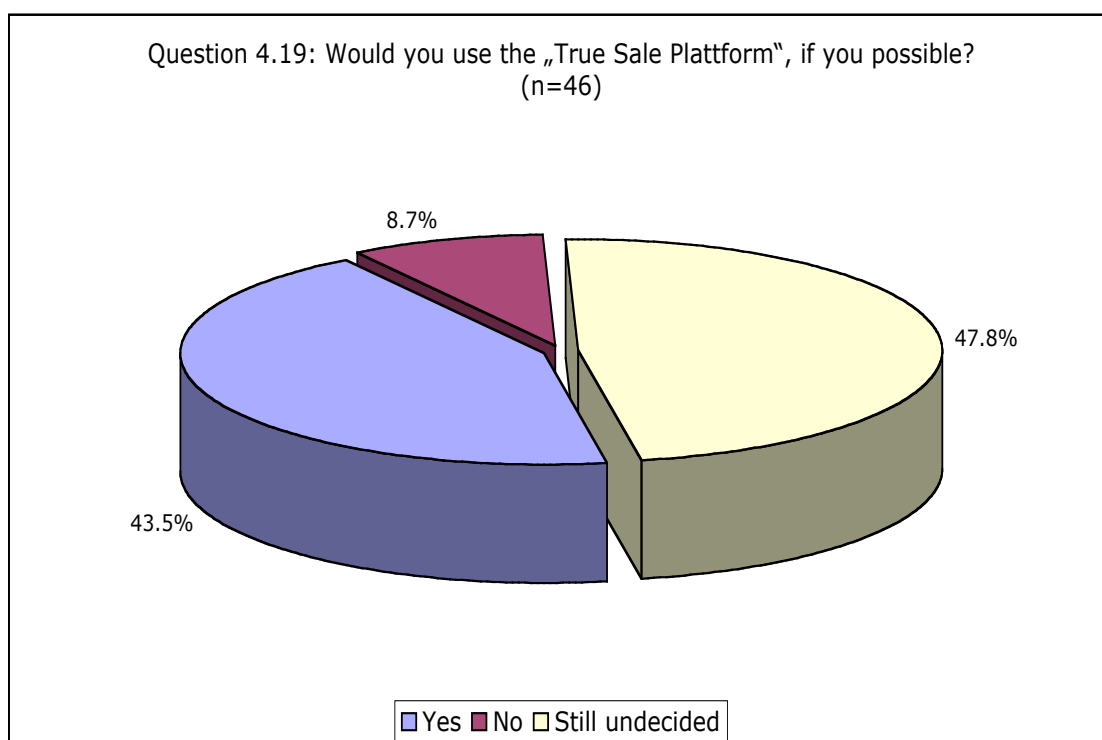


Figure 65: Acceptance of the 'True Sale Plattform'

Source: Authors Compilation

¹²²⁰ Cf. Rajendra and Nicolaus (2004), p. 1.

5.1.3 Summary

All in all, as described above, the real estate industry is faced with decreasing loan commitments, rising lending rates and an overall unfavourable environment for borrowers, especially for long-term borrowers as in the case of real estate. This is supported by the following trends:

1. Large non-performing loan exposures in the banking industry
2. The pressure of capital markets on banks to increase their returns-on-equity (ROE Problem)
3. The Cancellation of state guarantees for German Landesbanks (Landesbank problem)
4. The influence of Basel II on real estate financing.

As has been proven by the above analysis this is expected to result in an increased shift from credit to capital markets and the trend to Asset-Securitisation.

The knowledge base of real estate financing institutions with respect to Asset-Securitisation and Real Estate Securitisation is, however, quite low. Especially the concept of Real Estate Securitisation is not sufficiently known. Nevertheless, the True Sale Initiative that has come up during the last two years will do its part to make the concept of Asset-Securitisation more well known; it will also widen its applicability.

The ultimate result of this analysis is the fact that there is an increasing need of alternative sources of financing. Even though the TSI is only for bank originated Securitisations, signs are positive that this will also help the corporate market. Real Estate Securitisation as an innovative financing tool might be one choice within that spectrum of alternative ways of financing for the property industry. In that context, the following chapter will analyze the potential of Real Estate Securitisation as a catalyst for the shift from credit to capital markets.

5.2 Real Estate Securitisation for Germany

5.2.1 Market Overview

History of Securitisation in Germany

From the start, the evolution of the Asset-Securitisation market in Germany has been slow. Early indications were that it will take a long time for the market to succeed. This was due to a variety of factors including:¹²²¹

1. Already long-established financing and funding instruments (Pfandbrief).
2. Adverse sentiments from regulators.
3. Most banks were very reluctant to rock the regulatory boat in order to access a source of funding they did not require at the time.
4. No pressing capital or cost needs.
5. Traditionally, the long-standing and very close banking relationships in Germany have a long time presented another considerable barrier.

The weak German framework for Asset-Securitisation, as compared to other countries in Europe, can be attributed to multiple factors:¹²²²

- No need for Securitisation as a bank funding market, as there was a strong covered bond/Pfandbrief market in Germany.
- No need to use Securitisation as a means for government funding or the divestment of non-core assets.
- No special Securitisation legislation.
- No overall government support.

There has certainly been no shortage of assets in Germany that could be included in Securitisation structures. The potential asset base is huge, given the

¹²²¹ Cf. Taylor (1996), p. 54.

¹²²² Cf. The Boston Consulting Group (2004), p. 25.

size of the German economy and the importance of the corporate sector including:¹²²³

- Trade receivables
- Credit-card receivables
- Lease financings
- Auto leases
- Corporate loans

However, the incentive to securitise has traditionally been low and obstacles have been high for most potential participants. Especially, the lack of incentive for Residential Mortgage-Backed Securities has been an obstacle, as there has been a substantial and active domestic covered bond market (Pfandbriefe) and other funding instruments were not needed. Any progress has been slow. The close banking relationships enjoyed by most German companies has acted as a strong counterforce to any need to change the current system. However, this has gradually changed in recent times.

Even though Germany is one of the world's largest, most robust, and diversified economies, and even though Asset-Securitisation is favourable for the development of an economy with respect to financial markets, Germany was one of the latest followers of the Asset-Securitisation trend in Europe. It was not until 1997 for a first guideline to be published in Germany.

After a couple of true sale transactions in 1998 and 1999, the market has shifted to synthetic Securitisation. The synthetic Securitisation market in Germany experienced a significant push in 2000 and was boosted by the existence of two major transaction platforms that enabled even smaller portfolios to be securitised in a cost-efficient manner. The synthetic market is favoured because of discussions initiated by the German tax authorities about the potential tax liability of special purpose vehicles in Germany. True sale transactions involving German assets were no longer attractive to German

¹²²³ Cf. Taylor (1996), p. 56.

originators and sponsors, despite the originators' increasing need for liquidity.¹²²⁴

Current State of the Securitisation Market

Today, most German banks are still utilizing synthetic structures to offload credit risk from their property loans. The use of synthetic structures is one of the characteristics of the German market, due to a combination of economic and tax reasons. The enormous growth of unfunded synthetic issuances has resulted from the increasing ease with which German banks use synthetic Securitisations.¹²²⁵

In 2003, there were only 2 out of 17 public Asset-Securitisation transactions were based on a true sale structure (auto or leasing ABS). 15 transactions were of a synthetic nature (pure bank Securitisations). True Sale transactions of German banks were primarily executed through their subsidiaries abroad with non-German assets. The reason lies primarily in a tax and legal obstacle (trade tax) and the main motivation behind synthetic Securitisations:¹²²⁶

1. There are tax and legal obstacles in German Asset-Securitisation transactions (i.e. trade tax issue) that have two main effects that make true sale transactions more costly, and thus unfeasible, as compared to synthetic Securitisation:
 - a. High rating agency discounts on the rating of German issuances. This is due to the fact that there is a risk in unsolved questions about legal (insolvency issue) and tax (trade tax issue).
 - b. High documentation requirements as a result of the constraint for the transfer of receivables under the German civil code.

The average transaction costs for a synthetic Securitisation lie around 26.5 bp, whereas true sale Securitisations additionally incur 8bp up-front costs and 17.5 additional credit enhancement costs, in order to

¹²²⁴ Cf. Kreppel (2003), p. 273.

¹²²⁵ Cf. Hunt (2004), p. 2.

¹²²⁶ Cf. The Boston Consulting Group (2004), p. 12.

account for the discussed risks. This leads to a funding disadvantage of 25.5 bp – double as much as the synthetic transaction costs.

2. The main motivation of synthetic Securitisations is the relief of regulatory capital. As this only applies to regulated banking institutions, the main Securitisation focus in Germany has been on banking institutions. Because relief of regulatory capital was the most pressing concern for banks in Germany and the level of alternative funding was still acceptable, it did not matter to banks if the transactions were of a true sale or of a synthetic nature.

Nearly all transactions in Germany are originated by banks. While Asset-Securitisation transactions, in the past, have been primarily motivated by balance-sheet restructuring, risk transfer and relief of regulatory capital, in the future funding will become a key factor in the Securitisation market. Funding spreads have narrowed in such a way that Asset-Securitisation might become a competitive funding tool.¹²²⁷

Even though the relief of regulatory capital is still the biggest driver, funding as a motive has gained importance. This has also been demonstrated by the lender survey done for this thesis. (Figure 66 and Figure 67)

While volumes of funded synthetic and true sale issuance are low relative to unfunded synthetic issuances, German originators are now increasingly looking to the true sale market. The German ministry of finance is increasingly interested in Asset-Securitisation and market participants are waiting for the introduction of reforms designed to match structured finance solutions to the banking, corporate and public sector's funding needs. The True Sale Initiative reflects a strong drive in Germany towards these types of transactions. If attempts to improve the legal environment for true-sale transaction are successful, this could well mean that the size of the German structured finance market will start, in the near future, to reflect the size of the German economy within Europe.¹²²⁸

¹²²⁷ Cf. Weber (2004), p. 3.

¹²²⁸ Cf. Collingridge, *et al.* (2003), p. 245.

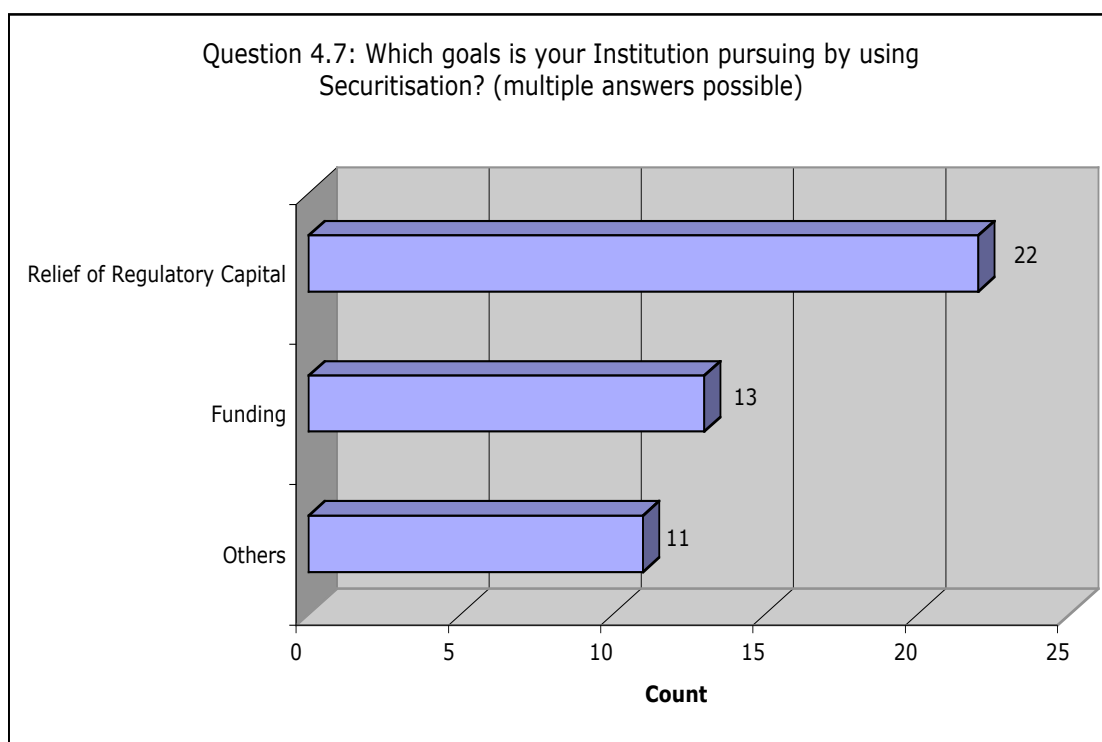


Figure 66: Lending institutions' motives for Securitisation

Source: Authors Compilation

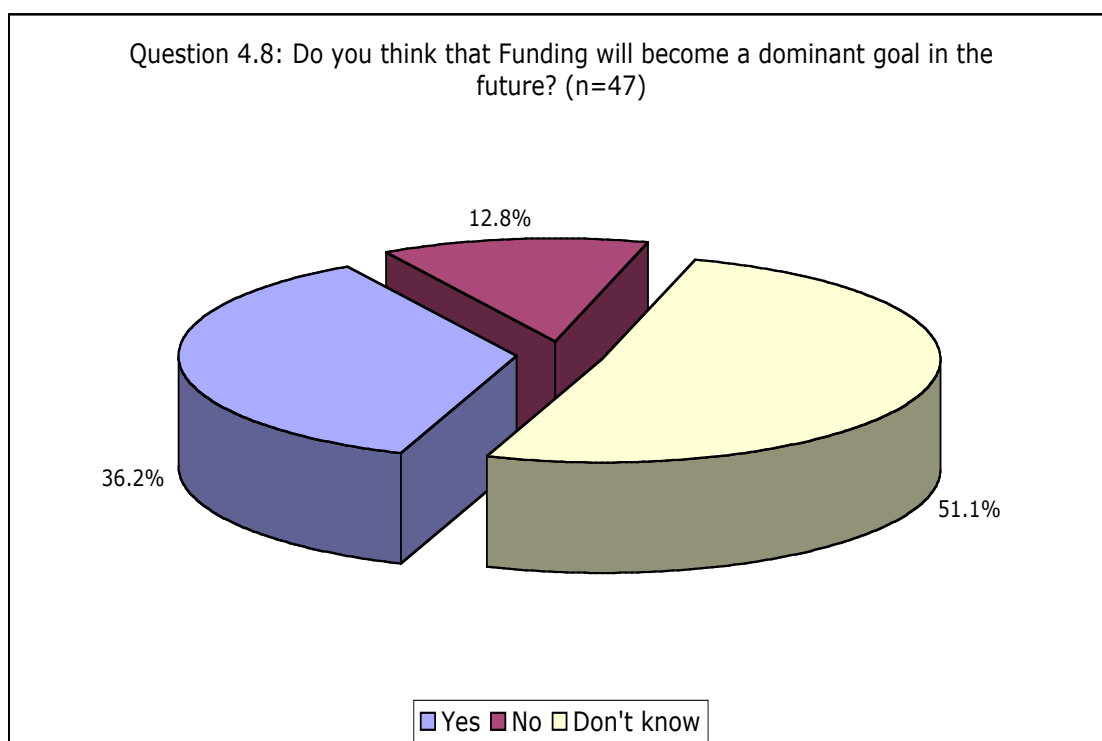


Figure 67: The role of the funding as a motive for banks

Source: Authors Compilation

The tax disadvantage (trade tax issue) has been solved for credit institutions by the German Small Business Support Act (Kleinunternehmerförderungsgesetz), which was passed in July 2003, and funding, besides the relief of regulatory capital, will become a very important goal for banks. Hence, this leads to conclusion that Asset-Securitisation will increase. However, this only counts for credit institutions. Corporates and especially real estate companies do not fall under the exception of the new law, and thus their transactions would still incur increased transaction costs. Apart from that the insolvency issues are still unsolved, which is a strong obstacle and risk. As a result, right now, the Real Estate Securitisation market is virtually non-existent. Only transactions with very large volumes would be feasible, if even. One case in that respect has been the Securitisation of a loan over the Centro Oberhausen shopping centre.¹²²⁹

5.2.2 Test of Minimum Evolution Requirements for Germany

“Whether you can securitize the future real estate cash flows or not is just a question of, if the regulatory, tax, accounting and structural issues can all be reconciled...But again, if the tax structure, the accounting and the regulatory framework are such that in Germany you need a solution, then yes, that is a perfectly legitimate solution.”¹²³⁰

Only during the last two year, the support and strengthening of the German financial market has become one of the primary goals of the German government (represented by the Ministry of Finance). One key element in that respect is the fostering of the Asset-Securitisation market in Germany. In part, this has led to the German Small Business Support Act. The law was a first measure in reducing obstacles for Asset Securitisation in Germany, however, it was only a very small step as compared to list of problems and obstacles in the legal, regulatory, tax and accounting environments. For policy makers, it took a long time to identify the strengthening of the overall financial market in Germany as one of the major goals and if it takes as long to implement a favourable

¹²²⁹ Cf. The Boston Consulting Group (2004), p. 12.

¹²³⁰ Cf. Robinson (2003), Interview 9, p. 554.

framework, then Germany will not be a major force in Asset-Securitisation for years to come.

This part of the analysis will go into depth on the current problems and obstacles with Asset-Securitisation in Germany. It will also delineate potential solutions.

5.2.2.1 Stringent and Reliable Legal and Regulatory Framework

This sub-chapter deals with the legal and regulatory framework as it relates to the following question:

- What is the prerequisite of functioning environment?
- What is the current legal and regulatory framework made up of – how did it evolve?
- What are the obstacles to the development of the market?
- What are potential solutions?

First it will be looked at the legal environment and then the regulatory environment will be analyzed.

1. Legal Environment

The legal environment is far away from being favourable for the evolution of Real Estate Securitisation.

a. Prerequisite for a functioning Legal Environment

The most crucial prerequisite for a functioning Real Estate Securitisation market is a good and reliable legal environment as it relates to the bankruptcy code, to the legal transfer of assets and the institution of SPVs:

- The possibility of a 'true sale' or perfection of a security interest. For investors the primary concern is to perfect their security interest in the case of bankruptcy of the originator or borrower.
- The legal framework to establish a Special Purpose Vehicle that is bankruptcy remote.

- The legal right to transferred assets upheld even in the even of bankruptcies.
- Security interests must be transferable and investors must have the ability to perfect their security interest after transfer, for transactions involving asset sale or pledging. This all has to be executed at a relatively low cost

Hence, in order for Real Estate Securitisation to be feasible there has to be

1. a reliable bankruptcy/insolvency code,
2. clarity of property title,
3. ability to establish priority of liens on the collateral, and
4. the ability to enforce foreclosure and repossession over a reasonable time period.

The last point in the list is the key to Real Estate Securitisation in that respect. If it is not possible to get to the assets that are underlying the transaction and to foreclose on those in a short period of time, then investors will not buy into the transaction. Thus, the market will not come into existence.

b. Evolution/State of Legal Environment¹²³¹

Legally, Securitisation of receivables has always been possible within the German legal system – which is comparable to the case of factoring. However, the system has not necessarily encouraged the development of Asset-Securitisation, as is. The sale of receivables (assets) is solely based on the German civil code. There is no specific law governing Asset-Securitisation.

In Germany, the transfer of a receivable works through the assignment of legal and beneficial ownership interest in a receivable. The receivable may be assigned without notice to the debtor and the assignment can be evidenced by computer records. However, notice is required to be given

to debtors to avoid them obtaining a valid discharge for payments to the originator. Exceptions to assignment exist where there is a contractual prohibition on assignment, where the assignment would change the nature of the obligation or where there is a judicial attachment.¹²³²

The non-existence of special Securitisation legislation makes the legal due diligence of receivables in Germany very time consuming and costly.

c. Current Legal Obstacles

The legal environment in Germany does not fulfil the minimum requirements for true sale transactions. Due to that fact rating agencies usually apply haircuts to German 'true sale' transactions and require higher credit enhancements.

Besides Data Secrecy issues, there are four main legal problems with respect to Real Estate Securitisations in Germany:

I. Classification of True Sale

In Securitisation deals credit enhancement usually takes the form of a discounted purchase price, with the possibility that the originator will receive an additional payment, if the assets' performance exceeds the purchaser's funding obligations. Currently, there is no German court authority with respect to Securitisation transactions regarding the qualification criteria of the discount between the nominal value of the assets and the purchase price. The key question that is still unsolved is, if the asset sale the described case will be classified as a true sale or a secured financing with all the bankruptcy implications, and what an adequate sale discount is.

In case that the assignment of receivables is not considered a true sale but a secured loan with the receivable assignment as

¹²³¹ Cf. Taylor (1996), p. 55; The Boston Consulting Group (2004), p. 25.

¹²³² Cf. Civil Code - Bürgerliches Gesetzbuch (BGB), §§ 399, 134, 320, 362, 364, 398, 404, 406.

security, then in case of originator insolvency the § 166(2) of the German Insolvency code applies.¹²³³

In the case of the originators' insolvency, as the assets' owner, the purchaser, can request segregation of the assets, and the insolvency administrator does not have the right to enforce and collect them. However, if the purchaser is considered to be a secured lender, the insolvency administrator has the right to realise the assets for and on behalf of the insolvency estate and to remit the realisation proceeds to the purchaser. Not only does this cause a timing issue for the purchaser, who is dependent on the insolvency administrator for enforcing the claim, but in such cases the insolvency administrator is also entitled to deduct certain costs, which could be 9 per cent or more of the realisation proceeds.

II. Uncertainty in the Insolvency/Bankruptcy Code

As described above, even if the transaction is qualified as a true sale, there is a big uncertainty with regards to bankruptcy proceedings in the case of the originator insolvency. First of all, it is difficult for investors to perfect their security interest in case of insolvency - right of separation (Aussonderungsrecht) vs. Right of separate satisfaction (Absonderungsrecht), secondly there is a delay in enforcement of security interest and thirdly it can be very expensive (up to 9% of outstanding receivables).¹²³⁴

III. Legal Separation of asset and security

The legal separation of receivable (asset) and security interest is difficult. Under certain circumstances, the true sale of assets is possible. However, the ability to perfect the security interest after transfer in the case of pledged assets is hazardous. The transfer of the security at sale may be very expensive and unfeasible. For

¹²³³ Cf. Insolvency Code – Insolvenzordnung (InsO) - § 166 (2).

¹²³⁴ Cf. Insolvency Code – Insolvenzordnung (InsO) - § 173 (1).

the case of real estate it is, however, crucial to perfect the security interest, as this circumnavigates the § 166 (2) InsO.

The transfer of security interest in Real Estate Securitisation transactions (i.e. land charges over real estate) can be done in two ways; either through a certificate land charge (Briefgrundschuld) or through the entry of the new security holder in the land registry (Buchgrundschuld). If there is no certificate that can be transferred then the entry in the land registry is the only alternative.¹²³⁵

This process, however, can be very burdensome, time-consuming and costly – depending on the underlying collateral (number of properties and transaction amount).

IV. Future Cash Flow Securitisation¹²³⁶

A key element of a True Sale Securitisation is the isolation of the assets and cash flows from the originator's other assets (this is particularly important if the originator becomes insolvent). German insolvency rules will not affect the transfer of claims where the originator has performed his contractual obligations. However, problems arise out of contracts constituting continuing contractual obligations for both parties, such as long-term lease and future real estate receivables.

Under the insolvency/bankruptcy code, upon the opening of insolvency proceedings, the insolvency administrator may either terminate the contract or opt for its continuation. Irrespective of the insolvency administrator's decision, any assignment effected before the opening of insolvency proceedings will cease to be effective, and the purchaser no longer has an interest in the receivables generated thereafter.¹²³⁷

¹²³⁵ Civil Code - Bürgerliches Gesetzbuch (BGB), §§ 401, 1153, 1250, 1154 (3).

¹²³⁶ Cf. Kreppel (2003), p. 275.

¹²³⁷ Cf. Insolvency Code – Insolvenzordnung (InsO) - §§ 103, 110.

Apart from the discussed obstacles, a comprehensive law governing all issues of Asset- and Real Estate Securitisation is missing in Germany. The multitude of applicable laws and provisions adds a high complexity and huge costs (lawyer, accountant, and tax lawyer fees) to the market that represent a great hindrance to the development.

d. Potential Solution

Potential solutions range around the creation of a specific Securitisation law that incorporates the following provisions:

1. Simplified rules for transferring assets and security interests (including land charges).
2. Definition of appropriate sales discounts for Asset-Securitisation transactions to qualify as a true sale.
3. Stringent criteria to perfect security interest in case of originator bankruptcy.
4. Clarification of §§ 103 and 110 InsO for future real estate receivables.

Without a specific law and the clarification of the key issues Asset-Securitisation and especially Real Estate Securitisation will not evolve, but stay a niche market.

2. Regulatory Environment

The German regulatory environment has set a framework for Asset-Securitisation. However, it leaves much undesired room for interpretation.

a. Prerequisite for a functioning Regulatory Environment

Theoretically it must be in the policy makers' best interest to foster the capital market in Germany, and thus to create a favourable regulatory environment for Asset-Securitisation in Germany. In this respect, the regulatory authorities must balance their concerns for financial soundness with the need for fair, prudent and transparent rules, as they relate to:

- Regulated originators (banks, insurance companies)

- SPVs (buyers of assets and issuers of securities)
- Investors in Asset-Securitisations (banks, insurance companies)
- The overall financial market.

b. Evolution/State of Regulatory Environment¹²³⁸

The German regulatory institutions, the Bundesanstalt für Finanzdienstleistungsaufsicht (BAFin – German bank and insurance supervisory authority) and the Bundesbank (German Central Bank) have generally not favoured the inception and evolution of Asset-Securitisation as other countries in Europe have done (e.g. UK or Italy).

The main concerns leading to this defensive attitude were:

- The risk of issuing institutions to select only their best quality assets to include in transactions, thus reducing the overall quality of a balance sheet ('cherry picking').
- Loss of control over the institution's customers.
- The complexity of issue documentation, combined with use of untested legal structures, in most cases.
- The signalling effect to financial markets – Securitisation may be seen as a sign of weakness of the overall banking system.

As other markets in Europe developed it became obvious that none of the above issues needed to be of concern to the regulators. However, it took time for the understanding to grow within the German regulatory institutions. Progress was slow, as regulators were seeking to control any development closely. Hence, it took until 1997 for the first regulatory guidelines to come out.

This was the Circular 4/97, dated 19 March 1997. The guideline deals with Asset-Backed Securities (ABS) transactions by German credit institutions and outlines how German credit institutions can achieve regulatory capital relief through the sale of own customer (loan)

¹²³⁸ Cf. Taylor (1996), p. 56.

receivables by way of Asset-Securitisation/Asset-Backed Securities (ABS) transactions.

Circular 4/97 (Banking Supervisory Guideline on ABS)¹²³⁹

The purpose of this circular was to demonstrate the authority's general regulatory approach with respect to Asset Securitisation and to provide credit institutions with planning and legal certainty regarding some central questions. The overall goal was to facilitate launching such transactions without the prior involvement of the regulatory authority as has been the standard before this circular. The 1997 circular was amended by the circular 13/98,¹²⁴⁰ clarifying that revolving transactions are not covered by the application of Circular 4/97.

The key proposition of the guideline is that credit institutions selling their own receivables in Asset-Securitisation transactions do not need to include the receivables sold when applying banking supervisory credit limitation principles (in particular Own Funds-Principle I – Grundsatz I), provided no risk regarding such receivables is retained.

For this relief of regulatory capital to be applicable, the following conditions need to be met:¹²⁴¹

- There is a legally valid transfer of the receivables.
- Recourse against the seller of the receivables, other than recourse based on liability for the legal existence or compliance with the eligibility criteria, is excluded.
- No substitution of receivables takes place between the purchaser and the seller after the transfer, other than substitutions due to non-compliance with the contractually agreed eligibility criteria.
- If the seller has a right to repurchase, it is limited to a rest-portfolio of less than 10% of the receivables transferred; the repurchase

¹²³⁹ Cf. Jeffrey (2001), p. 33.

¹²⁴⁰ Cf. Federal Banking Supervisory Office (1998), p. 1.

¹²⁴¹ Cf. Federal Banking Supervisory Office (1997), p. 1.

may only take place upon completion of the transaction (full payment to the investors) and only at the current value.

- Neither the seller of the receivables nor any affiliate within the meaning of § 10a of the German Banking Act (KWG) participates in the financing of the special purpose vehicle during the transaction.
- Any purchase of such securities in the secondary market may only be at the current market price; securities purchased must be considered for the purposes of Own Funds-Principle I.
- Adequate measures are taken to prevent any future de facto obligation of the credit institution selling the receivables to guarantee the obligations of the special purpose vehicle in case of financial difficulties;
 - I. There must be no corporate group, company law, capital or personal connection between the selling credit institution and the special purpose vehicle or the trustee.
 - II. The name of the selling credit institution must not be identical or similar to the name of the special purpose vehicle.
 - III. The sales prospectus must indicate clearly that only the special purpose vehicle is liable for claims of investors and that a guarantee obligation of the seller of the receivables exists only to the extent that it has been expressly undertaken.

Additionally, ABS transactions must not be potentially detrimental to the confidential relationship between credit institution and customer, or subject the customer to the risk that the loan agreement could be settled in a manner not appropriate to the banking relationship.

c. Current Regulatory Obstacles

First of all, the regulatory authorities, for a long time, have overweighed their concerns for financial soundness relative to the need for fair,

prudent and transparent rules. Overall, the supervisory processes are very inefficient and the lack of qualified statements on current issues leaves market participants with a high degree of uncertainty.

Apart from that, there are only general guidelines relating to Asset-Backed Security transactions of credit institutions (i.e. German banks), leaving undesired room for interpretation, which leads to more expensive transactions. Moreover, the environment lacks guidelines on ABS transactions involving insurance companies as originators. Statements on the regulation of SPVs and measures to favour the overall financial market (including Asset-Securitisation) are missing. The current initiative to favour the financial markets development in Germany has stayed short of those goals, until now.

d. Potential Solutions

SPVs should be exempt from regulatory oversight. They should not be subject to any regulatory equity requirements. The SPV should be a self-contained entity that has the right to perfect the investors security interest. It should not be restricted in issuing bonds at the capital markets to fund the acquisition of assets. For bankruptcy remoteness reasons the SPV should be restricted in its business activities.

5.2.2.2 Sound Tax and Accounting Environment

With the passing of the German Small Business Support Act (Kleinunternehmerförderungsgesetz) in July 2003 and the resulting elimination of trade tax risk for bank-originated receivables and bank-sponsored SPVs, the overall tax environment has turned into the right direction. However, there remain substantial tax obstacles for corporate and government Securitisations. This is a great hindrance for the development of Real Estate Securitisation. Hence, the overall tax and accounting environment is not sound and will currently not be of any favour to Real Estate Securitisation transactions.

1. Tax Environment

a. Prerequisite

- a. There should must not be a tax levied when the an asset from the originator's balance sheet is transferred to the SPV that has not existed before the transaction (e.g. additional VAT).
- b. Securitisation SPVs should not to be subject to double taxation
- c. If the SPV is resident on-shore, then the overall tax liabilities should be comparable to those in other countries on an international level.
- d. The institution and operation of an SPV should be tax-neutral. The costs should be reduced to a minimum.

b. State of the tax environment

Generally, with respect to tax questions in Asset-Securitisation transactions there exist no separate provisions or laws. The general taxation laws apply.

c. Current Tax Obstacles

There are three major obstacles to Real Estate and Asset-Securitisation transactions in Germany with respect to taxes and SPVs:

I. Value Added Tax (VAT)

There is a risk that, in certain cases, 16% VAT must be paid on the transferred receivables by the SPV. This may be applicable to the SPV if the originator has not paid VAT. The risk requires transactions securitising non-bank receivables to account for 16% additional credit enhancement.¹²⁴²

II. Trade Tax ('Gewerbesteuer')¹²⁴³

In true sale Securitisations the structure demands that the seller remains liable for the servicing and collection of the receivables

¹²⁴² Cf. Value Added Tax Code – Umsatzsteuergesetz (UstG), § 13 (c).

¹²⁴³ Cf. Kreppel (2003), p. 275.

transferred to the SPV. For transactions involving German assets this means that the servicing in respect of receivables sold to an offshore SPV still takes place in Germany.

Over the last three years, German tax authorities have taken the view that in Securitisation transactions the collection activities of the German-based originator, in its capacity as the SPV's servicer, could result in the SPV being liable to German tax by virtue of having a permanent establishment in Germany.

The assumption that a foreign SPV is permanently established in Germany not only results in the SPV's liability for payment of corporate income tax on the income attributable to the permanent establishment, but also its liability for payment of German trade tax. With SPVs operating on a notional profit basis, corporate income tax is generally not an issue. However, the financing debt incurred by SPVs through the capital markets to fund the acquisition of assets would create a trade tax liability rendering true sale Securitisations uneconomical.

Trade tax is a tax levied by the local communities. It is calculated on the basis of the taxable corporate income plus, amongst others, half of the interest and other considerations paid by borrowers of long-term debt (generally defined as debt exceeding one year). With an effective tax rate of about 16 to 19 per cent, adding back half the funding costs for trade tax purposes has a material impact on the overall tax costs for SPVs and, ultimately, for originators. Due to their debt obligations, SPVs have been at risk of having to pay trade tax, which would destroy the economic benefit of true sale Securitisations. In the past this made true sale transactions involving German assets unattractive to German originators. In the case of bank assets, transactions were executed by using synthetic structures to avoid the risk of a potential trade tax liability.

III. No adequate trusts – high Set-up Costs

There is no adequate trust law in Germany that could be applied to Special Purpose Vehicles. HeSPVs in Germany are incorporated in the form of limited liability companies (GmbH, AG). This incorporation requires them to have a nominal capital of €25,000 or €50,000 for a GmbH or an AG, respectively. In comparison to other jurisdictions (e.g. the channel islands), where those costs are as low as €1,000, transaction costs in Germany are not competitive.

As a result of those problems and the resulting tax uncertainty, most SPVs in German transactions are incorporated off-shore. This is for a number of reasons:¹²⁴⁴

- In order to not to be regulated as a financial institutions.
- In order to avoid trade tax.
- Because there is no adequate trust law for Issuing-SPVs in Germany.
- Due to withholding tax payable on payments from a German-domiciled SPVs.

Even though it is possible to structure off-shore transactions like this, it is very costly and complex. Hence, it is very undesirable for real estate companies, and it only becomes feasible in very large transactions.

d. Potential Solutions

Without tax and accounting neutrality to minimize additional costs, the economics of Real Estate Securitisation will stay unattractive. The tax uncertainties have to be clarified and a comprehensive special tax law covering Asset-Securitisation transactions shall be constructed.

¹²⁴⁴ Cf. Taylor (1996), p. 55.

2. Accounting Environment

The accounting environment is not crucial to the evolution of the market, but it is important to its success, as companies securitising their assets want to have a clear guidance on what constitutes an off-balance sheet deal.

a. Prerequisite

- a. The accounting board should set out reasonable rules on off-balance sheet treatment for GAAP purposes to fairly reflect the company's operations.
- b. The classification of a true sale transaction should be clearly delineated.

b. Current Problems¹²⁴⁵

From an accounting perspective, a true sale means the transfer of economic ownership. It is a fundamental rule under German law that the economic ownership of an asset cannot be transferred in part. However, if a portfolio of receivables is sold at a discount, then this does not constitute transfer of full economic ownership.

On 1 October 2002, the German Institute of Certified Public Accountants (IDW) published a statement concerning the accounting treatment of asset-backed securities transactions. The statement focuses on the accounting treatment on the originator's balance sheet, and, specifically, on whether the originator can remove the assets from its balance sheet as a result of their sale (off-balance sheet treatment) and how to treat a purchase price discount. However, the statement has stayed short of clear guidance. In the absence of clear court guidance, there have been discussions amongst the accounting community about the appropriate discount level that allows the transfer to qualify as a true sale.

c. Potential Solutions

Clarification of accounting rules and the application of adequate discounts to come to a true sale.

5.2.2.3 Functioning Investor Environment

In order to stimulate the Real Estate Securitisation market, investments should be made available to a broad range of investors, including funds and private persons (inter alia). Restrictions with respect to investment volume (if any) should only be made with respect to the risk inherent in that issuance – only regulated institutions should be restricted by all means. Private and public companies are regulated and thus restricted in their investments by their respective markets and owners.

A functioning investor environment is in place. There are only minor obstacles with respect to regulated investors, which can be neglected with the inclusion of international investors. There are already currently investors that are investing in German, European and US Securitisation issuances.¹²⁴⁶

- 40% of all Asset-Securitisations in Europe are bought by banks, 20% by funds and insurances and 20% by corporates.
- As opposed to the US, where there are sub-investment grade buyers, in Europe and especially in Germany, investors only invest into high investment grade paper (i.e. 'A' – 'AAA').
- Investors are primarily Bank investors. They are only investment grade buyers, as they are subject to high scrutiny and regulatory capital constraints. With the new Basel Capital Accord (Basel II) this will increase, as sub-investment grade tranches require a high amount of regulatory equity (up to a total deduction of equity).

Hence, in order for a functioning investor environment to be set up, a development and support/vitalization of sub-investment investor environment apart from bank investors has to be favoured on the demand side. As this is important for the development, it is not a crucial prerequisite from the start, as there are some sub-investment grade investors in Europe and the US that would buy German issuances for the benefit of portfolio diversification.

¹²⁴⁵ Cf. Weller and Klüwer (2004), p. B6.

¹²⁴⁶ Cf. The Boston Consulting Group (2004), p. 23.

5.2.2.4 Competitive Real Estate Market Framework

The real estate market framework as it relates to the situation of real estate market in Germany is not favourable.

- Real estate is a safe investment in Germany, but not generally an attractive investment.¹²⁴⁷
- Landlord-unfriendly environment with respect to residential and multi-family real estate
- Landlord-neutral environment with respect to commercial real estate
- Intermediate length of lease contracts – 5 to 10 years.
- Risk of real estate investments – especially in B- and C-markets is increasing, due to the overall economic situation. The overall risk-adjusted return is relatively low.
- High Asset prices – Low yields.
- Low inflows into stocks – historically low yields on bonds – high inflows into real estate – Height of the financial cycles – flows into real estate are generally high – investment opportunities low
- Economic stagnation – decreasing population – Decreasing occupation – Increasing vacancies – overbuilding – downcycle of the physical real estate cycle.

In essence, what this suggests is that there is not necessarily a favourable push expected to come from the real estate environment. Yields are too low and only high yielding properties with good and predictable cash flows can be used for Securitisation.

¹²⁴⁷ Cf. Schulte and Matzen (2003), p. 1.

5.2.2.5 Other Crucial Drivers

1. Government involvement – *a government must have an interest in the market in order for the Asset-Securitisation market to evolve and succeed. A strengthening of the market through active government support is proven.*

Historically, government support for Asset-Securitisation has been low, as has been discussed above. However, the interest in creating an Asset Securitisation market has increased during recent times. The change in attitude can basically be attributed to 5 trends in Germany (primarily driven by the banking sector):

- I. The equity base of many German banks has drastically declined during the last few years and banks are increasingly pressured by high ROE hurdles.
- II. During the same time the bank funding costs have gone up, due to a deterioration in credit rating – rating downgrades.
- III. Additionally, the German Landesbanks have lost their government support (Anstaltshaft, Gewährträgerhaftung).
- IV. The potential implications of the new Basel Capital Accord (Basel II) have resulted in declining loan origination.
- V. Historically unsound loan underwriting criteria and the ongoing economic downturn have created an increasing base of non-performing loans.

This has put pressure on the overall banking system. In addition, it has lead to rising funding costs for the German industry and funding has increasingly become a constraint to the German economy. Therefore it is in the governments best interest to relief and safeguard the banking system and to transfer the risk out of the banking system to investors by the means of Asset-Securitisation.

So, government support has generally increased, which is a positive sign for Asset-Securitisation and Real Estate Securitisation. Nevertheless, the legal changes (i.e. trade tax) and the increased government support has only

related to credit institutions and their Securitisations. It has stayed short of support for non-banking companies. Hence, there needs to be an increasing support from the government side for company Securitisations in order for the Real Estate Securitisation to evolve and succeed.

Apart from that direct government support by the means of market involvement as an originator for government assets (receivables and real estate) would lead to strong development of the market.

2. Financial Crisis – *there must be a strain on the overall financial system and especially the banking system for Real Estate/Asset-Securitisation to evolve as an alternative source of financing.*

As has been shown in the lender survey in Chapter 5.1, there is a strain on the banking system. The study has shown that this might be a strong driver for the evolution of Asset-Securitisation and Real Estate Securitisation. In this respect, the situation is comparable to the US in the mid- to late-1990's, when the financial institution went deep into real estate and took a lot of risky loans and made a lot of bad decisions and Securitisation eventually resolved this problem.

3. Credit Crunch – *loan commitments must be down, funding and refinancing of existing loans must be burdensome for originators to seek other sources of funding.*

The lender survey has also shown that there is a credit crunch. Loan commitments are going down and lending spreads are increasing. The influence of Basel II does its part as well – long-term real estate lending gets burdened with high risk-weightings.

4. Real Estate Market Cycle –*a downturn in the financial real estate cycle is favouring the need for innovative funding solutions.*

A downturn in the financial real estate cycles is not observable at the moment. Flows into real estate are quite high – especially from the German open-ended property funds.

5. Competitive Advantage of Capital Markets Funding – *Funding arbitrage for originators, lower transaction costs & profit arbitrage for*

investment banks are strong drivers for the inception and development of Securitisation.

Right now, there is no funding arbitrage for originators achievable, except for prime real estate properties. Transaction costs in Germany, as explained above are generally higher than in other countries in Europe. The profit arbitrage for investment bankers is low, due to very competitive margins in traditional German real estate lending. Only with steadily increasing margins on real estate financings, the arbitrage potential will increase and thus the competitive advantage of capital markets funding will become a driver.

5.2.3 Potential Core Determinants

The described core determinants in this chapter can be identified as proposed determinants. The compilation results out of the international comparison and is not proven by any in-depth empirical study. An additional empirical study would have gone beyond the frame of this dissertation, and thus, this leaves room for future studies.

5.2.3.1 Borrowers

Following the categorization of core determinants out of Chapter 4.5.3, potential borrowers/originators/sellers of assets in the first stage of the German market could be:

1. **The government** (federal, state or municipal government) through its treasury department or Government-Linked Corporations (Landesentwicklungsgesellschaften). In Germany, public real estate valued at €2.3 Trillion is still owned by the government, states and municipalities.¹²⁴⁸
2. **Large Real Estate Holders/Investors** – companies comparable to Olympia & York (US) or British Land (UK). In Germany this could be large open-ended or special funds, large public real estate companies (e.g. IVG) or insurance companies (e.g. MEAG).

¹²⁴⁸ Cf. Anonymous, Die Welt (06 April 2004).

3. **Big Corporations** – There is a huge amount of real estate in the books of German blue chip corporations. This real estate is optimal for Sale-Leaseback Securitisation.¹²⁴⁹

The reason why it has to be those Borrowers/Originators/Sellers that become the innovators of Real Estate Securitisation in Germany is that, due to the legal and tax obstacles, innovators must have large balance sheets with big assets and the financial capabilities to cope with the additional costs. At a later stage the market will open to smaller Corporates, Real Estate Developers (small and medium size)¹²⁵⁰ and Real Estate Investors. As the market gets even more efficient Conduit Vehicles and Banks will become originators.

5.2.3.2 Assets

Considering the high risks, high transaction costs and the multiple obstacles for executing German Real Estate Securitisations, potential underlying properties for have to satisfy the following criteria:

1. High grade properties → 'Flagship'/'Trophy' properties (primarily retail and office). Only high yielding properties qualify.
2. The real estate has to have long term leases and predictable cash flows. Only properties with good quality and stable income qualify.
3. There have to be sufficient property cash flows to service the bonds and to account for credit enhancement.
4. Good credit tenants – preferably government credits.

Looking at the **Types of Assets** Physical Real Estate Assets (i.e. buildings and land), Mortgage Loans and Credit Tenant Leases would make sense. Current and Future Real Estate Receivables, Receivables from future residential development sales proceeds and Operating Companies do not work legally.

The primary **Collateral/Security** in this respect will be the property (fee simple) as this is a clear title or a mortgage over the property, as a land charge

¹²⁴⁹ Cf. Schulte and Schäfers (2004), p. 529.

¹²⁵⁰ Cf. Schulte and Bone-Winkel (2002), p. 30.

(mortgage lien) is the most legitimate means to secure claims on real estate under the German legal system.

The most likely underlying **Property Types** to be included in the first transactions to start off the market are Office, Multi-Family/Residential (i.e. apartments) or big Retail assets. Other property types might follow at a later stage, but to start out those three are the most likely.

From a **Property Category** standpoint, the most likely categories are Investment Real Estate and Corporate Real Estate. Development Real Estate will not be feasible.

There has been a first true sale involving a German asset in November 2003. The transaction was backed by a single property. The asset was comprised of a loan that is secured on the CentrO Oberhausen shopping centre, Germany's largest shopping centre. So this deal comprises the first Real Estate Securitisation in Germany. The reason that it was a Single Property transaction hints at a similar development cycle as in the case of Singapore and the US.¹²⁵¹

5.2.3.3 Motives

The motives are dependent on the use of Real Estate Securitisation as a divestment vehicle (i.e. a way to monetize on the physical real estate asset) or as an innovative financing instrument. For non-real estate corporates in Germany it would make sense to use Real Estate Securitisation as a divestment vehicle, for real estate investors it would make sense to use it as an innovative financing instrument. Depending on the ultimate motivation, the following motives are proposed.

1. Real Estate Securitisation as a divestment vehicle

- Balance-Sheet Management (Off-Balance Sheet Financing)
- Creation of liquidity through an asset divestment
- Property Monetization

2. Real Estate Securitisation as an innovative financing instrument

¹²⁵¹ Cf. Anonymous (2003r), p. 76.

- Diversification of funding sources
- Cheaper funding
- Higher Loan-to-Value (in specific cases of Credit Tenant Lease Securitisation)
- Non-recourse, long-term funding

5.2.3.4 Transaction Schemes

Based on the previous compilation of borrowers/originators/sellers, assets and motives, the following potential property-related transaction schemes can be derived:

1. *Physical-Asset Real Estate Securitisation/Singapore Structure:*

A structure similar to the Singapore structure featuring the Securitisation of physical assets, could be imaginable for German corporates that want to monetize on their real estate via sale-leasebacks. The real estate will be transferred to the SPV that holds it in the interest of the investors. Combining the bonds with preference shares will create a new universe of investment vehicles.

2. *Single Asset/Property – Single Borrower:*

Especially Single Property/Single Borrower transactions are the drivers in the first stage of a market. With the first Single Property – Centro – deal this transaction scheme has already started the market.

3. *Sale-Leaseback/Credit Tenant Lease Securitisation*

Those transactions which are totally independent of the borrower, but that are dependent on the property's tenant credit and partly on the quality of the property, have a great potential in Germany. Especially, for the case of government real estate – divestments could be structured into this transactions scheme. There is also a big potential demand from the corporate side, as sale-leaseback payments of good credit corporates could be securitised.

5.2.4 Summary

The market for Asset-Securitisation in Germany has taken longer to evolve as in other countries. The German environment is truly a unique environment with a lot of peculiarities and historically little inclination to start Securitisation than other European countries. However, going forward this source of financing will become crucial to the success of the German financial market.

This sub-chapter has identified all obstacles and potential solutions in the fields crucial to the development of Real Estate Securitisation markets. The following key propositions for the evolution of Real Estate Securitisation in Germany resulting out of this chapter can be derived:

1. Overall acceptance of Asset-Securitisation as a legitimate funding instrument for banks, governments and corporations:
 - a. Better communication and a greater dialog between policy makers and industry participants.
 - b. Creation of Securitisation specific legislation.
2. Facilitation of Real Estate Securitisations:
 - a. Reduction of complexity for Securitisation transactions.
 - b. Resolution of VAT and trade tax problem. Compared to alternative ways of funding (sale-leaseback and factoring), Securitisation of real estate is levied with extra trade tax that does not apply to the others. By all means, this is not a fair and stringent tax framework.
3. Creation of legal certainty and an increasing predictability of legal decisions for lawyers, accountants and investment bankers:
 - a. Legal changes have to tackle the issues described in the upper part. Clarification is especially needed with respect to the insolvency code.
 - b. The adequate discount for a 'true sale' has to be determined.

Even though most crucial drivers hint at the inception of Real Estate Securitisation in Germany, it is the legal, regulatory, tax and accounting environment that hold up that development. As long as rules for Securitisation transactions are not cleared and SPVs are pressured to go off-shore, the complexity of Securitisation transactions will not decline and the resulting

transaction costs will stay the biggest hindrance to the development of this financing instrument.

This chapter has also identified potential core determinants. Summarizing that analysis the potential determinants are listed below:

1. **Borrowers/Originators/Sellers** – the government, large real estate holders/investors, big corporations
2. **Assets** – trophy properties (primarily office, retail and multi-family) with stable cash flows and acceptable yields.
3. **Motives** – primarily cheaper funding and diversification of lending sources (for innovative financing) or off-balance sheet financing and monetization on assets (for divestment vehicle)
4. **Transaction Schemes** – Physical-Asset Real Estate Securitisation (primarily with corporate property), Single-Property/Single Borrower Securitisation or Credit Tenant Lease Securitisation (primarily with government property)

5.3 Chapter Summary and Recommendations

“One of the things that you definitely need to achieve is that the real estate seller can have a lower cost of capital so that he will be motivated to sell into this regime [Real Estate Securitisation], which will create an adequate return to the investor.”¹²⁵²

The primary reason why ‘True Sale’ Asset-Securitisation and Real Estate Securitisation virtually do not exist in Germany is that there is no funding arbitrage available in the market. Hence, originators (i.e. the property industry) cannot lower their cost of capital. This can be attributed to two things:

1. **Competitiveness of Securitisation** – historically margins for traditional real estate lending have been so low that there is no opportunity for arbitrage for investment bankers.

¹²⁵² Cf. Robinson (2003), Interview 9, p. 554.

- 2. Transaction Costs** – the legal and regulatory obstacles are so high that the cost of setting up such a transaction – if even possible – outweighs the benefits.

The arbitrage to be made by originators and investment bankers, alike, is not big enough for the market to take off. Once this turns to become valid, the market will evolve. Markets need time, a favourable framework and crucial drivers to develop. This cannot be pressed into existence, if the market is deregulated and a neutral overall framework is set into place, it usually happens over time driven by market forces.

The evolution of the Real Estate and Commercial Mortgage-Backed Securities markets in Singapore and the US/UK respectively may be used as an analogy and a proxy of how the market might develop in Germany, if the right factors apply and the adequate measures are taken.¹²⁵³

From the real estate perspective, the drivers for the inception and evolution of a Real Estate Securitisation market in Germany are strongly hinting at a need for this development. The kinds of market conditions of the real estate financing industry in the US in the early 1990's and Singapore in the late 1990's, when the modern Real Estate Securitisation market started to take off is not too far off from the case of Germany in 2004:¹²⁵⁴

- Poor historic underwriting and hence a lot of bad loans in the years leading to the financial crisis. The problems in the banking system are not as bad as in the US with the Savings & Loans, but there are a lot of non-performing loans that are being sold in the market. Some of those portfolios might get securitised once the legal and regulatory constraints have been worked out.
- There is a credit crunch, which has led to a higher risk sensitivity that is at the moment resulting in total risk avoidance (influenced by large non-performing loan exposures, high ROE targets, the Landesbank problem and the anticipation of Basel II).

¹²⁵³ Cf. Corcoran (2003), Interview 12, p. 554.

¹²⁵⁴ Cf. Corcoran (2003), Interview 12, p. 554; Choe (2003), Interview 13, p. 554.

- The traditional real estate lenders are not committing as much real estate debt as they used to and the lending rates are rising. (Figure 48 and Figure 49)
- A weakening real estate market.

The analogy between the USA in the early 1990's and Germany in the early 2000's is intriguing. As a result the CMBS/Real Estate Securitisation market in Germany should start to take off, if the evolution obstacles can be solved.

Evolution Obstacles

The obstacles and problems relating to the overall framework for Asset-Securitisation in Germany are typical for the evolution of such markets in Europe. The Europe part within the international comparison in Chapter 4.4 has shown that regulatory, legal, tax and accounting obstacles have held up the stringent development of Asset-Securitisation in local European markets, with the exception of the UK. The key problems in this regard are:

1. Legal Obstacles with respect to:

- a. Classification of True Sale
- b. Uncertainty in the Insolvency/Bankruptcy Code
- c. Legal Separation of asset and security
- d. Missing legal basis for 'Future Cash Flow Securitisation'

2. Regulatory Obstacles

- a. Only general guidelines concerning Asset-Securitisation exist – no specific regulations.
- b. Overweight of regulatory concern for financial soundness relative to the need for fair, prudent and transparent rules.
- c. Supervisory processes are very inefficient and the lack of qualified statements on current issues leaves market participants with a high degree of uncertainty.

3. Tax Obstacles relating to the following issues

- a. Value Added Tax (VAT)

- b. Trade Tax (Gewerbsteuer)

- c. High Set-up Costs

4. Accounting Obstacles

- a. Uncertainty about the classification of a 'True Sale'

- b. Off-Balance Sheet Treatment

A BCG analysis has come to the conclusion that the German 'True Sale' Asset-Securitisation market could grow to two to three times the size of the synthetic Securitisation market (amounting to €60-90 bn), if there were no evolution obstacles prevalent and the framework was clear and certain.¹²⁵⁵

The institution of the True Sale Initiative (TSI – today called True Sale International) under the leadership of the Kreditanstalt für Wiederaufbau (KfW) has started to create an awareness for the problems relating to Asset-Securitisation.

The participation of KfW and the resulting bad bank discussion with respect to the role of the KfW offers strong similarities to the USA and Japan. It sounds similar to the US Resolution Trust Corporation (RTC) in the late 1980's/early 1990's and the Japanese Vehicle discussion in the late 1990's. The comparison is valid as the overall tendencies can be compared and the drivers are alike, however, the situation in Germany never got so out of hand that there needed to be a liquidation institution.

The TSI has lobbied to create a more favourable framework and especially to alleviate the trade tax issues for banks. The KfW's part in this respect was to conciliate between the different parties and to create a platform for Securitisation. Until now, the TSI was successful with respect to the trade tax issue that was abolished for SPVs securitising bank receivables. However, the creation of a platform was not that easy with 13 parties at the table – all having their own opinion. It took 18 month for a first transaction to come out. The feasibility of the TSI platform is still to be proven.

¹²⁵⁵ Cf. The Boston Consulting Group (2004), p. 23.

Even though the current measures taken by the government and the TSI are favourable for the overall environment, they have stayed at least two steps short of a functioning market (especially for Real Estate Securitisation). There is still a huge uncertainty relating to true-sale, perfection of security interest and insolvency proceedings. In addition to that, there is still no clarity with respect to the VAT problem, and the trade tax issue is still a great obstacle and uncertainty for corporate Securitisations including real estate transactions.

Recommendations for policy makers

Out of the previous discussion the following recommendations for decision and policy makers can be derived:

- Most importantly, the government has to get involved into the evolution, from the regulatory and legislative side as well as from the originator side securitising assets.
- The legal framework has to be adapted to account for Securitisation – especially with respect to the treatment of Securitisation receivables in the insolvency code.
- The regulatory approach to Asset-Securitisation has to be lightened and more flexibility should be given to the market.
- The tax framework has to be clarified to fit Securitisation. Taxes levied on this kind of financing should not be higher or lower than on other financings. The SPVs should be tax-neutral, so that they can be incorporated in Germany and do not need to go off-shore.
- The accounting board has to clarify the off-balance sheet criteria. Sale discounts required for credit enhancements (overcollateralisation) should not exclude off-balance sheet treatment. Adequate levels of discount have to be found.

6 Conclusion and Outlook

“It is not the type of finance that is decisive, but rather the entrepreneurial vision that can breathe life into a project.” – Jerry Speyer¹²⁵⁶

Real Estate Securitisation constitutes an alternative source of financing for the property industry. However, it is not the form of financing utilized that is crucial to the success of the project – traditional finance or Real Estate Securitisation – it is the ultimate feasibility of the idea and the quality of the property that are crucial. Hence, even if a financing method can partly substitute traditional financing, it can, however, not make up a miserable property quality or a bad project. Real Estate Securitisation is not an exit route for bad real estate. Compared to traditional lending, which can also account for lower grade real estate, Real Estate Securitisation will only work for good real estate that generates steady and constant cash flows. In that sense it is similar to bank lending, but it takes a different view than bank lending – bank lending is primarily concerned with the value of the property, Securitisation is primarily concerned with the quality of the cash flows derived out of the property.

This dissertation has shown that alternative sources of financing for the property industry in Germany are increasingly important. Real Estate Securitisation as one instrument in that spectrum can fulfil part of that need. The underlying thesis has argued the case for Real Estate Securitisation as an alternative source of financing for the property industry. It constitutes a new financing instrument that diversifies borrower funding base, and hence reduces the risk of being too dependent on traditional bank financing in an upcoming credit crunch.

This dissertation has added to academic research by creating a framework for Asset- and Real Estate Securitisation markets. It has also created a new evolution model for such markets. Taking up the hypotheses delineated in the introduction of this thesis, the results will be displayed in the following part:

¹²⁵⁶ Friedemann (2003), p. 9.

1. The first hypothesis holds true. There is a theoretical framework that can be applied to Securitisation Markets, of which Real Estate Securitisation Markets are a special subset. The framework described in Chapter 3.4, has been validated through the International Comparison in Chapter 4. The theoretical framework is made up of the relevant Asset-Securitisation market, the environments influencing the respective market and the core determinants that are integral parts of Securitisation transactions.

- a. The relevant market is determined by the assets underlying the transactions. In the case of real estate, the relevant market is the Real Estate or Property Securitisation market.
- b. Generally, all Asset-Securitisation markets are influenced by the following environments: the Regulatory/Legal, Tax, Accounting, the Investor and Rating Agency Environment. Additionally in the case of Real Estate Securitisation the market is influenced by the Real Estate and Local/Country specific environment.
- c. The core determinants of an Asset-Securitisation transaction are the assets, the borrowers/originators/sellers of those assets and the motives for executing such transactions. The relevant core determinants for Real Estate Securitisation have been derived out of the international comparison and have been presented in Chapter 4.5.3.
- d. Drivers for the inception and development of Real Estate Securitisation markets can be derived from the framework. A life cycle model for the evolution of such markets can be constructed.
- e. Through the international comparison a set of minimal requirements has been worked out in order for a Real Estate Securitisation Market to develop.

The minimal requirements have been applied and tested for the case of Germany. The results lead to the rejection of the third hypothesis.

2. The second hypothesis cannot be rejected, i.e. there is a need for Real Estate Securitisation in Germany. Commercial real estate financing in Germany will become more difficult and more expensive in the future. Hence, there is a need for new innovative real estate financing products that will evolve and partly substitute traditional lending sources. The underlying reasons are compelling and have been delineated by this research work:

- a. There is a credit crunch in Germany – i.e. the loan commitment of German Mortgage Banks is declining. This is especially true for lower grade/quality properties.
- b. The Basel Capital Accord (Basel II) will have a big influence on Real Estate Financing. The effects are increased financing costs due to higher risk-weightings.
- c. The withdrawal of the German Government as guarantor for the credit of the German ‘Landesbanks’ will lead to lower credit rating on their part, and hence will lead to higher lending spreads in the real estate lending market.
- d. The lending spreads that have traditionally been incomparably low in Germany are starting to rise, which opens up the field for new competitive products. Real Estate Securitisation is one of those competitive products. Rising rates will create arbitrage opportunities for capital markets financing compared to traditional credit market financing.
- e. Additionally, the changing business model of Mortgage-Banks will strengthen the global trend towards Asset-Securitisation, which is changing the market environment that is moving from credit to capital markets.

Those are all indications for decreasing loan commitments and rising real estate lending rates. The trend for rising rates will keep on going upwards in the future, until the margins will level out on the European level in the medium term. This creates both, the need for Real Estate Securitisation and the right circumstances for its evolution.

3. The third hypothesis can be rejected, i.e. Real Estate Securitisation, as defined in Chapter 3, is under the current conditions not viable in Germany. Even though the drivers for the successful evolution of a Real Estate Securitisation market in Germany exist, there is still a long list of obstacles and unsolved problems. The drivers for the successful evolution as they were clearly delineated in Chapter 5.2 are:

- a. **Government involvement**
- b. **Financial Crisis**
- c. **Credit Crunch**

The obstacles that hinder a favourable framework for Real Estate Securitisation are (as described in Chapter 5.2.2):

- a. **Legal Obstacles** – Classification of True Sale, Uncertainty in the Insolvency/Bankruptcy Code, Legal Separation of asset and security, Missing legal basis for 'Future Cash Flow Securitisation'.
- b. **Regulatory Obstacles** – High uncertainty: only general guidelines concerning Asset-Securitisation, no transparent rules, inefficient supervisory processes.
- c. **Tax Obstacles** – Problems with Value Added Tax (VAT), Trade Tax (Gewerbesteuer), High Set-up Costs.
- d. **Accounting Obstacles** – Uncertainty about the classification of a 'True Sale', Off-Balance Sheet Treatment.

For the above-described obstacles and problems there are potential solutions. This implies the following measures, if policy makers want to make Real Estate Securitisation transactions possible:

- a. Most importantly, the **government has to get involved** into the evolution, from the regulatory and legislative side as well as from the originator side securitising assets.
- b. The **legal framework has to be adapted** to account for Securitisation – especially with respect to the treatment of Securitisation receivables in the insolvency code.

- c. The regulatory approach to Asset-Securitisation has to be adapted and **more flexibility** should be given to the market.
- d. The **tax framework has to be clarified** to fit Securitisation. The trade tax privilege for Securitisation should also be extended to Corporate Securitisations.
- e. The accounting board has to clarify the **off-balance sheet criteria**.

If the basic conditions/general framework can be changed in such a way as described above, then the following core determinants could lead the way (as delineated in Chapter 5.2.3):

1. Potential German Borrowers/Originators/Sellers:

- a. **The government** – the government, as owner of large amounts of real estate, is in desperate need to raise liquidity without raising the national deficit above the Maastricht Criteria.
- b. **Large Real Estate Holders/Investors** – large open-ended or special funds, large public real estate companies (e.g. IVG) or insurance companies (e.g. MEAG), as they have the critical mass and enough money to take the risk for the first deals.
- c. **Big Corporations** – German blue chip corporations, as they that hold a lot of non-core real estate that is optimal for Sale-Leaseback Securitisation.

2. Potential German Assets

In the first, stage potential German property assets have to be **‘trophy’ properties** (primarily office, retail and multi-family) with stable cash flows and acceptable yields.

3. Potential Motives

- a. Real Estate Securitisation as an **innovative form of financing**: primarily cheaper funding and diversification of lending sources (for innovative financing), or

b. Real Estate Securitisation as a ***divestment vehicle***:

off-balance sheet financing and monetization on assets (for divestment vehicle)

4. Potential Transaction Schemes

a. ***Physical-Asset Real Estate Securitisation*** (primarily with corporate property)

b. ***Single-Property/Single Borrower Securitisation***

c. ***Credit Tenant Lease Securitisation*** (primarily with government property)

The individual transaction structures for potential transactions in Germany will result out of the specific combinations of borrowers/originators/sellers, assets, motives and transaction schemes.

Even though there is a credit crunch, rates are rising and property owners and developers are anxious about the future development in the traditional banking market in Germany, good properties and projects will still be able to get traditional bank financing at reasonable rates. However, an effective distribution of funds from both private and public real estate capital markets has an enormous influence on the efficiency of an overall economy. In this respect, international evidence shows that public markets usually exercise greater control over lending activities, and hence provide a more adequate distribution of funds than private lending markets. This reduces the amplitude of real estate cycles.

Thus, this thesis can be viewed as an appeal and an encouragement for German policy makers and lobbyists to further the development of the Asset-Securitisation market in general and the evolution of a favourable environment for a Real Estate Securitisations in specific.

Future potential for further Research/Studies

During the course of the dissertation multiple other fields of research related to Real Estate and Asset-Securitisation have come up that will need clarification and that represent interesting issues for further investigation of this field of research. To cover all of those issues would have gone far beyond the scope of

this dissertation. This is why they are listed below for researchers to tackle in the future. This list is not comprehensive, but it hints at further fields for future research:

- Following the argumentation of this dissertation, research still needs to be done from a legal perspective. In essence, how should the specific laws, regulations and structures be adapted to fit the German market? How should they be implemented?
- The German market needs some more consideration from the demand side. In this respect, it would be of interest to construct an empirical study to estimate the true potential of Real Estate Securitisation in Germany. A survey including potential originators/borrowers could lead to an analysis of the true motives and assets to form specific transaction structures.
- Overall, from a market evolution perspective, there is research demand on the further evolution potential of a public real estate debt market, once it has reached its standardisation phase (innovation theory).
- No study has been made on the advantageousness of Real Estate Securitisation on a macro-economic level. It would be interesting to measure the influence/success/economic advantage that the existence of an Asset-Securitisation or a Real Estate/Commercial Mortgage-Backed Securitisation market has brought to a country with a functioning market.
- Also from an economic perspective, it would be of great interest to proof the funding advantage of Real Estate/Commercial Mortgage-Backed Securitisation and to calculate the economic advantage resulting out of an overall lower cost of funding for the economy.

This dissertation can only be seen as a first step into the direction of academic research on Asset- and Real Estate Securitisation. This very specific field still leaves a lot of questions unanswered; there is only little academic coverage. In this respect, this thesis has provided a foundation for analyzing and understanding Asset- and Real Estate Securitisation markets, and for doing future research in this field.

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ABCP vs. ABS Term deals

Type	Multi-Seller Conduit	Private Placement	Public Issue
Transaction Size	\$25 million-\$1 billion	\$25 million-\$150 million	\$100 million+
Execution Time	4-6 weeks	8-12 weeks	12-16 weeks
First Time Set-up Costs	Low	Moderate	High
Accounting Treatment	Off-Balance-Sheet	Off-Balance-Sheet	Off-Balance-Sheet
Rating Requirements	May be optional	At least one rating required	At least two ratings required
Credit Enhancement	Overcollateralization, Cash Collateral Account, Letter of Credit, Surety Bond	Overcollateralization, Cash Collateral Account, Letter of Credit, Surety Bond	Overcollateralization, Cash Collateral Account, Letter of Credit, Surety Bond
Liquidity Agreements	Required	Not Required	Not Required
Funding Rate Basis	Spread off the CP or LIBOR indices, basis can be swapped	Floating or Fixed, basis can be swapped	Floating or Fixed, basis can be swapped
Prepayment	Usually no penalty for payments or facility reductions made on payment dates (unless an interest rate hedge is involved)	Other than "clean-up calls," sponsor initiated prepayments are not allowed	Other than "clean-up calls," sponsor initiated prepayments are not allowed
Legal Structure	Collateral transferred via "true-sale" to bankruptcy-remote Special Purpose Entity (SPE)	Collateral transferred via "true-sale" to bankruptcy-remote Special Purpose Entity (SPE)	Collateral transferred via "true-sale" to bankruptcy-remote Special Purpose Entity (SPE)
Typical Documentation	Transfer Agreement, Purchase Agreement, Liquidity Facility, Legal & Tax Opinions, Portfolio Audit	Offering Memorandum, Sale Agreement, Pooling & Servicing Agreement, Trust Indenture, Legal & Tax Opinions, Comfort Letter	Prospectus & Registration, Documents, Underwriting Agreement, Sale Agreement, Pooling & Servicing Agreement, Trust Indenture, Legal & Tax Opinions, Comfort Letter
Financial Covenants	Sometimes. However, effects are minimal due to bankruptcy-remote structure	Sometimes. However, effects are minimal due to bankruptcy-remote structure	Very rarely
Operating Flexibility	High	Low	Low

Chart 22: Comparison of structural features in Placement Alternatives¹²⁵⁷

¹²⁵⁷ Cf. Roever and Fabozzi (2003), p. 18.

Literature Overview Singapore

Academic Journals and Conference Papers:

- Asset Securitisation in Singapore: A Tale of Three Vehicles¹²⁵⁸
- Asset-Backed Securitisation in Singapore: Value of Embedded Buy-Back Options – Value and Pricing of Embedded Buy-Back Options¹²⁵⁹
- Analysis of Credit Risk in Asset-Backed Securitisation Transactions in Singapore¹²⁶⁰
- Residential Mortgage-Backed Securitisation in Asia: The Singapore Experience¹²⁶¹
- Commercial Mortgage-Backed Securitisation in Singapore: The Challenges Ahead¹²⁶²

Research Projects:

- Real Estate Securitisation in Singapore - A timely innovation or a white elephant?¹²⁶³
- Real Estate Financing in Singapore: Alternative Methods¹²⁶⁴
- Asset Backed Securitisation.¹²⁶⁵

Bachelor and Master Thesis:

- Commercial real estate Securitisation in Singapore: a case study.¹²⁶⁶
- Swaption approach to estimating the financing cost of Asset-Backed Securitisation.¹²⁶⁷
- Buyback options in Asset-Securitisation deals.¹²⁶⁸
- Valuing embedded options in Real Estate Securitisation transactions.¹²⁶⁹

¹²⁵⁸ Cf. Ong, *et al.* (2000), p. 54.

¹²⁵⁹ Cf. Sing, *et al.* (2003), p. 173.

¹²⁶⁰ Cf. Sing, *et al.* (2004), p. 235.

¹²⁶¹ Cf. Sing and Ong (2004), p. 159.

¹²⁶² Cf. Sing, *et al.* (2004), p. 1.

¹²⁶³ Cf. Ong, *et al.* (2001), p. 1.

¹²⁶⁴ Cf. Ooi, *et al.* (2002), p. 1.

¹²⁶⁵ Cf. Sing, *et al.* (2003), p. 1.

¹²⁶⁶ Cf. Quek (1996), p. 1.

¹²⁶⁷ Cf. Yong (2002), p. 1.

¹²⁶⁸ Cf. Lim (2000), p. 1.

- Governance of Securitisation Transactions: Risk control and management in Real Estate Asset-Backed Securitisation deals.¹²⁷⁰
- Securitisation of Residential Real Estate in Singapore.¹²⁷¹
- Asset Securitisation: Is it a better source of financing for property companies in Singapore?¹²⁷²

¹²⁶⁹ Cf. Tan (2000), p. 1.

¹²⁷⁰ Cf. Tay (2002), p. 1.

¹²⁷¹ Cf. Tan (2001), p. 1.

¹²⁷² Cf. Heng (2002), p. 1.

Conduit Lenders in the US as of 1999

BANKS/INVESTMENT BANKS	OFF-WALL STREET CONDUITS
Archon Financial/Goldman Sachs	Capital Lease Funding
Bank of America	Central Park Capital
Bear Stearns	Finova Realty Capital
Chase Commercial Mortgage Banking	GE Capital Access
CIBC Oppenheimer	GMAC Commercial Mortgage
Citigroup/Salomon Smith Barney	Greenwich Capital
Credit Suisse First Boston	Heller Capital
Deutsche Bank Securities	Impac Commercial Capital Corp.
Donaldson, Lufkin & Jenrette	Llama Capital Mortgage
First Union	Midland Commercial Funding
J.P. Morgan	National Cooperative Bank
John Hancock Real Estate Finance	National Realty Funding
LaSalle National Bank	NW LLC
Lehman Brothers	RF Commercial
Merrill Lynch	
Morgan Stanley	
Paine Webber	
Prudential Mortgage Capital	
Teachers Insurance/Credit Suisse First	
Boston	
Wells Fargo Bank	

Chart 23: Conduit Lenders in the US as of 1999¹²⁷³

¹²⁷³ Peterson (1999), p. 56.

Milestones the US Secondary Mortgage Market

1938	The Federal National Mortgage Association (Fannie Mae) is established to purchase residential mortgages insured by the Federal Housing Administration (FHA).
1954	Fannie Mae is authorized to issue non-voting stock to the public to finance its operations. A conditional line of credit to the Treasury enables Fannie Mae to borrow from the public at low interest rates.
1957	States authorize Mortgage Guaranty Insurance Corporation (MGIC) to provide private mortgage insurance on conventional loans – those that do not carry government insurance or guarantees.
1966	Fannie Mae issues a series of collateralized bonds backed by mortgages owned by Fannie Mae, FHA and the Veterans Administration (VA).
1968	Fannie Mae is replaced by a new Fannie Mae that is a Government-Sponsored Enterprise (GSE) authorized to buy mortgages insured by FHA or guaranteed by VA. The Government National Mortgage Association (Ginnie Mae) is founded, which is a federal agency charged with guaranteeing Mortgage Backed Securities (MBS) backed by pools of those loans.
1970	Ginnie Mae guarantees its first MBS.
1970	The Federal Home Loan Mortgage Corporation (Freddie Mac) is founded to provide a secondary market for conventional mortgages, authorizing Fannie Mae to purchase such loans.
1971	Freddie Mac issues its first guaranteed MBS.
1974	Fannie Mae and Freddie Mac adopt a standard mortgage loan document to be used in all 50 states for residential mortgages they purchase.
1977	Bank of America issues the first private MBS.
1978	Maggie Mae (MGIC National Mortgage Corporation) and Pennie Mae (PMI Mortgage Corporation) issue the first private MBS backed by jumbo mortgages.
1981	Fannie Mae issues its first guaranteed MBS.
1981	Freddie Mac institutes a "swap program" in which a lender creates a pool of mortgages and then swaps it for Freddie Mac MBS.

1982	Residential Funding Corporation (RFC), a private conduit, spurs the development of an active secondary market for jumbo mortgages by offering to buy multiple types of loans each business day.
1983	Freddie Mac issues the first collateralized mortgage obligation (CMO), a type of multi-class MBS.
1984	The Secondary Mortgage Market Enhancement Act of 1984 (SMMEA) authorizes shelf registration of private MBS with a double-A or triple-A credit.
1986	The Tax Reform Act of 1986 promotes the use of Collateralized Mortgage Obligations (CMOs) by creating the Real Estate Mortgage Investment Conduit (REMIC), a vehicle that minimizes tax liability for multi-class MBS.
1989	The Financial Institutions Reform, Recovery and Enforcement Act of 1989 (FIRREA) severs Freddie Mac's ties to the Federal Home Loan Banks and gives it the same ownership structure as Fannie Mae.
1992	The Federal Housing Enterprises Financial Safety and Soundness Act establishes the Office of Federal Housing Enterprise Oversight as the safety and soundness regulator for Fannie Mae and Freddie.
1995	Fannie Mae and Freddie Mac begin to use automated underwriting systems.
1997	The Federal Home Loan Banks begin to participate in the secondary mortgage market by investing in non-jumbo conventional single-family mortgages.
2003	The volume of outstanding mortgages securitized by the secondary market grows to \$3.77 trillion.

Chart 24: Milestones in the Development of the US Secondary Residential Mortgage Market¹²⁷⁴

¹²⁷⁴ Cf. Falcon (2003), p. 31.

Interviews

All Citations in the document referencing to the conducted interviews refer to this page, because the original transcripts (from the Ph.D. thesis) have been taken out of this document for publication purposes. Enclosed are the details of all interview partners.

Interview 1: Anonymous

Interview with:	Anonymous
Position:	N/A
Department:	N/A
Company:	N/A
Company Category:	N/A
Address:	N/A
Topic:	Real Estate Securitisation in Asia
Date recorded:	31/07/2003
In-Footnote Citation:	Anonymous (2003), Interview 1

Interview 2: Lawrence Yeo

Interview with:	Lawrence Yeo
Position:	Chief Financial Officer
Company:	CapitaLand Commercial Limited Subsidiary of CapitaLand Inc.
Company Category:	Investor-Developer
Address:	Robinson Road #18-01 Robinson Point Singapore 068911 Singapore
Topic:	Real Estate Securitisation in Singapore
Date recorded:	01/08/2003
In-Footnote Citation:	Yeo (2003), Interview 2

Interview 3: Seck Wai Kwong

Interview with:	Seck Wai Kwong
Position:	Chief Financial Officer (Formerly Managing Director at DBS Bank and co-Head of Investment Banking)
Company:	Singapore Stock Exchange
Company Category:	Stock Exchange – Financial Services
Address:	Shenton Way #19-00 SGX Centre 1 Singapore 068804 Singapore
Topic:	Real Estate Securitisation in Singapore
Date recorded:	01/08/2003
In-Footnote Citation:	Seck (2003), Interview 3

Interview 4: Joseph Ooi

Interview with:	Joseph Ooi
Position:	Assistant Professor
Company:	Department of Real Estate, National University of Singapore
Company Category:	University
Address:	School of Design and Environment 4 Architecture Drive Singapore 117566 Singapore
Topic:	Real Estate Securitisation
Date recorded:	01/08/2003
In-Footnote Citation:	Ooi (2003), Interview 4

Interview 5: Sing Tien Foo

Interview with:	Sing Tien Foo
Position:	Director
Company:	Centre for Real Estate Studies National University of Singapore
Company Category:	Research - University
Address:	School of Design and Environment 4 Architecture Drive Singapore 117566 Singapore
Topic:	Real Estate Securitisation in Singapore
Date recorded:	04/08/2003
In-Footnote Citation:	Sing (2003), Interview 5

Interview 6: David Ho K. H.

Interview with:	David Ho Kim Hin
Position:	Associate Professor
Company:	Department of Real Estate National University of Singapore
Company Category:	University
Address:	School of Design and Environment 4 Architecture Drive Singapore 117566 Singapore
Topic:	Real Estate Securitisation in Singapore
Date recorded:	04/08/2003
In-Footnote Citation:	Ho (2003), Interview 6

Interview 7: Franklin Heng

Interview with:	Franklin Heng
Position:	President Real Estate Investment
Company:	Ergo Tru Asia
Company Category:	Real Estate Investor
Address:	23 Church Street # 15-03/06 Capital Square Singapore 049481 Singapore
Topic:	Real Estate Securitisation
Date recorded:	06/10/2003
In-Footer Citation:	Heng (2003), Interview 7

Interview 8: Darren M. Wolberg

Interview with:	Darren M. Wolberg
Position:	First Vice President Institutional Mortgage Securities/ CMBS
Company:	Legg Mason Wood Walker, Inc.
Company Category:	Investment Bank
Address:	100 Light Street 26th Floor Baltimore, MD 21202 USA
Topic:	Real Estate Securitisation in the US / CMBS
Date recorded:	18/08/2003
In-Footer Citation:	Wolberg (2003), Interview 8

Interview 9: Thomas E. Robinson

Interview with:	Thomas E. Robinson
Position:	Managing Director Investment Banking
Company:	Legg Mason Wood Walker, Inc.
Company Category:	Investment Bank
Address:	100 Light Street 31st Floor Baltimore, MD 21202 USA
Topic:	Real Estate Securitisation in the US
Date recorded:	20/08/2003
In-Footer Citation:	Robinson (2003), Interview 9

Interview 10: Sharon Lee Stark

Interview with:	Sharon Lee Stark
Position:	Managing Director Fixed Income Capital Markets
Company:	Legg Mason Wood Walker, Inc.
Company Category:	Investment Bank
Address:	100 Light Street 26th Floor Baltimore, MD 21202 USA
Topic:	Real Estate Securitisation in the US
Date recorded:	20/08/2003
In-Footer Citation:	Stark (2003), Interview 10

Interview 11: Martin C. Mitsoff

Interview with:	Martin C. Mitsoff
Position:	Managing Director Research & Strategy
Company:	Legg Mason Wood Walker, Inc.
Company Category:	Investment Bank
Address:	100 Light Street 26th Floor Baltimore, MD 21202 USA
Topic:	Real Estate Securitisation in the US
Date recorded:	21/08/2003
In-Footnote Citation:	Mitsoff (2003), Interview 11

Interview 12: Patrick Corcoran

Interview with:	Patrick Corcoran
Position:	Director Real Estate Structured Finance CMBS Research
Company:	J.P. Morgan Chase & Co
Company Category:	Investment Bank
Address:	270 Park Avenue Floor 10 New York, NY 10017-2014 USA
Topic:	Real Estate Securitisation in the US / CMBS
Date recorded:	27/08/2003
In-Footnote Citation:	Corcoran (2003), Interview 12

Interview 13: Stephen H. Choe

Interview with:	Stephen H. Choe
Position:	Vice President Real Estate Debt Markets
Company:	Deutsche Bank Securities Inc.
Company Category:	Investment Bank
Address:	60 Wall Street 10th Floor New York, NY 10005 USA
Topic:	Real Estate Securitisation in the US / CMBS
Date recorded:	27/08/2003
In-Footer Citation:	Choe (2003), Interview 13

Interview 14: Warren S. Ashenmil

Interview with:	Warren S. Ashenmil
Position:	Managing Director Structured Finance
Company:	Legg Mason Wood Walker, Inc.
Company Category:	Investment Bank
Address:	One Chase Manhattan Plaza 58th Floor New York, NY 10005 USA
Topic:	Real Estate Securitisation
Date recorded:	28/08/2003
In-Footer Citation:	Ashenmil (2003), Interview 14

Interview 15: Johannes Boeckmann

Interview with:	Johannes Boeckmann
Position:	Managing Director Real Estate Investment Banking
Company:	Eurohypo AG, North America
Company Category:	Investment Bank / Mortgage Bank
Address:	New York Branch 1114 Avenue of the Americas New York, NY 10036 USA
Topic:	Real Estate Securitisation in the US
Date recorded:	29/08/2003
In-Footer Citation:	Boeckmann (2003), Interview 15

Interview 16: Tyler Yang

Interview with:	Tyler Yang, Ph.D.
Position:	President
Company:	Integrated Financial Engineering
Company Category:	Financial Services
Address:	IFE Group 51 Monroe Street Plaza E6 Rockville, MD 20850 USA
Topic:	Real Estate Securitisation in the US
Date recorded:	02/09/2003
In-Footer Citation:	Yang (2003), Interview 16

Interview 17: Thomas R. Boemio

Interview with:	Thomas R. Boemio
Position:	Senior Supervisory Financial Analyst Division of Banking Supervision and Regulation
Company:	Federal Reserve
Company Category:	Regulator / Central Bank
Address:	Board of Governors of the Federal Reserve System Washington, DC 20551 USA
Topic:	Regulatory Environment / Basel II
Date recorded:	02/09/2003
In-Footer Citation:	Boemio (2003), Interview 17:

Interview 18: Jason C. Cave

Interview with:	Jason C. Cave
Position:	Chief Policy Section
Company:	Federal Deposit Insurance Corporation
Company Category:	Regulator
Address:	550 17th Street, NW Room F -2056 Washington, DC 20429 USA
Topic:	Regulatory Environment / Basel II
Date recorded:	08/09/2003
In-Footer Citation:	Cave (2003), Interview 18

Interview 19: Richard A. Jacobs

Interview with:	Richard A. Jacobs
Position:	Managing Director Structured Finance
Company:	Legg Mason Wood Walker, Inc.
Company Category:	Investment Bank
Address:	100 Light Street Baltimore, MD 21202 USA
Topic:	Real Estate Securitisation / Credit Tenant Lease Securitisation
Date recorded:	08/09/2003
In-Footer Citation:	Jacobs (2003), Interview 19

Interview 20: Leonard Van Drunen & Clive D. Bull

Interview with:	Leonard Van Drunen Clive D. Bull
Position:	Managing Director, Real Estate Structured Finance Vice President, Real Estate Structured Finance
Company:	JP Morgan Securities Ltd.
Company Category:	Investment Bank
Address:	125 London Wall London EC2Y 5AJ United Kingdom
Topic:	Real Estate Securitisation in Europe
Date recorded:	21/11/2003
In-Footer Citation:	Van Drunen and Bull (2003), Interview 20

Interview 21: Anonymous II

Interview with:	Anonymous II
Position:	N/A
Company:	N/A
Company Category:	N/A
Address:	N/A
Topic:	Real Estate Securitisation in Europe
Date recorded:	21/11/2003
In-Footer Citation:	Anonymous II (2003), Interview 21

Interview 22: Robert Rügemer

Interview with:	Robert Rügemer
Position:	Director Structured Finance covering the German speaking markets
Company:	AMBAC Assurance UK Limited
Company Category:	Monoline Insurer
Address:	Hasilwood House 60 Bishopsgate London EC2N 4BE UK
Topic:	Real Estate Securitisation in Europe / Role of Monoline Insurers in Securitisation Transactions
Date recorded:	21/11/2003
In-Footer Citation:	Rügemer (2003), Interview 21

Interview 23: Paul Rivlin & Caroline Philips

Interview with:	Paul Rivlin Caroline Philips
Position:	Joint CEO – Real Estate Investment Banking Managing Director – Securitisation
Company:	Eurohypo AG, London
Company Category:	Investment Bank
Address:	4th Floor 90 Long Acre London WC2E 9RA United Kingdom
Topic:	Real Estate Securitisation in Europe
Date recorded:	24/11/2003
In-Footer Citation:	Rivlin and Philips (2003), Interview 23

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